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CORPORATION OF GLASGOW

REPORT

OF THE

Medical Officer of Health

City of Glasgow

1946

Ordered by the Committee on Health to be printed

W5246

PREFACE.

It has been the custom in past years to preface the Annual Report by a brief reference to some of its principal contents. This year's Report contains many matters of interest, a study of which will amply repay the reader. In writing an introduction one can only touch on a few matters of salient interest.

The population for the calculation of vital statistics for 1946 has been estimated at 1,075,000. The birth rate at 21·9 per thousand was the highest rate reached since 1928, while the death rate from all causes at 13·49 was the second lowest recorded in the city since 1939. The maternal death rate per thousand births for 1946 was 2·82 for the city, the lowest rate ever recorded, while the rate for those mothers who attended the Child Welfare Ante-Natal Clinics was 2·2.

Pulmonary tuberculosis still continues to be a serious problem, the number of notifications for 1946 being 2,809 as compared with an average of 1,650 for the five years 1934-39. This large number of notifications, combined with the shortage of nurses, has made the problem of bed accommodation extremely difficult, and has resulted in a large waiting list of cases. At the end of 1946 there were 1,526 tuberculosis patients occupying beds in Corporation and other hospitals as compared with 1,761 in December, 1945. This reduction of 235 available beds was caused by the loss during the year of orthopaedic beds made available by the Department of Health for Scotland in Larbert Hospital and in the Garrison Hospital, Millport, and by the partial loss of accommodation for pulmonary tuberculosis in Emergency Medical Service hospitals and in the Corporation's own hospitals. The ultimate cause of the difficulties has been the acute nursing shortage, and the bed accommodation would have been much less if the existing nursing staffs had not continued to work extra hours.

The new chest unit at Mearnskirk Hospital came into use in November, 1946, and by the end of the year was working to capacity. The Department now possesses two up-to-date chest surgical units, the other being at Robroyston Hospital.

The report draws attention to the benefits of the Tuberculosis Allowance Scheme, which will be superseded by the new social insurance legislation which does not so much cancel the existing Scheme as extends its benefits to all forms of tuberculosis and to non-tuberculous disease.

It is worthy of note that a " Remploy " factory to suit tuberculous persons will begin operation at North Cardonald late in 1947.

In December, 1946, the first steps were taken in developing a part-time nursing scheme in the City hospitals in an endeavour to make good the loss of full-time personnel.

A special ante-natal ward for pregnant tuberculous patients has been opened in Robroyston Hospital where both obstetrical and tuberculous treatment is available. These extended facilities have filled a much needed gap.

During 1946 the Mass Radiography Unit, in addition to work done at Ashley Street Centre, visited several engineering works, and also set up a temporary centre in a church hall at London Road where 6,000 persons employed in cotton mills, carpet factories, printing works and bakeries in the Eastern Division of the city were examined. On an average, out of every thousand persons of whom miniature films were taken, 78 were recalled for a full-size film of the chest and 73 for clinical examination. During the year special investigations were made into the incidence of cardiac disease and in the observation of cases of tuberculosis with minimal lesions in the lungs. Of every thousand persons examined by miniature films, 4 required hospital treatment and 8 observation at a dispensary or under the care of their own doctor.

The year 1946 was outstanding in that during this period the post-war recrudescence of venereal disease reached its peak. Last year I reported that a rise in the incidence of venereal disease was becoming apparent, and this has continued throughout the year. The figures for 1946 show that the incidence of acute syphilis in males, for example, was 174 per cent. above the 1938 figure, compared with 46 per cent. in 1945. In view of the trend of venereal disease in 1945 and 1946 the publicity campaign carried out both nationally and locally was intensified. Penicillin has now assumed a permanent place in the treatment of venereal disease in the Corporation clinics. The decrease in the number of cases of congenital syphilis occurring in children under one year of age continues.

The year 1946 was not distinguished by any serious outbreak of infectious disease. The cases of scarlet fever and measles dealt with were of a mild type and presented a very different clinical picture from former days. This is clearly shown by the low mortality figures, only one death occurring among 3,431 cases of scarlet fever dealt with during the year. Although the position has improved within recent years, diphtheria continues to be a problem, as of 1,458 proved cases, 37 died, equivalent to a mortality rate of 2·5 per cent. Despite intensive propaganda the proportion of pre-school children protected by immunisation is still unsatisfactory.

The health and physique among the school population still continues to improve, and the removal of the income barrier to free treatment has shown good results.

The central laboratory has continued its excellent work, and towards the end of the year the laboratory undertook the routine Rh testing of all pregnant women attending the Corporation Ante-Natal Clinics. It is hoped that the information thus obtained will result in a diminution in the number of still-births. Special research work was also carried out on infantile gastro-enteritis.

The domestic help scheme continues to give great satisfaction. The service is undoubtedly an extremely useful social measure, and during 1946 there were 1,753 applications for help in maternity cases and 1,682 in respect of other illnesses.

It is gratifying to report the continuing fall in the infant mortality rate from 95 in 1944 to 68 in 1945 and to 67 in 1946. Although vitamin foods are available under the Ministry of Food for all expectant and nursing mothers and children up to five years, only 40 per cent. of expectant mothers and 20 to 30 per cent. of the young children are taking advantage of these foods, despite every encouragement.

There has been a growing interest in air purification and smoke abatement. Smoke abatement and fuel efficiency go hand-in-hand ; in fact, they are almost synonymous terms. Education in boilerhouse practice and fuel economy is being pressed forward, and in this respect the classes conducted by the Chief Smoke Inspector on these subjects have been well attended.

The Glasgow Port Health Authority commenced the year 1946 with its staff at pre-war strength. Eight hundred and thirty-one vessels from foreign ports were boarded and inspected during the year. Thirty-three per cent. of these ships came from infected foreign ports, three of them necessitating special precautionary measures owing to contact with smallpox. Details of the three ships concerned are included in the body of the report, where details are also given of the destruction of rats and the hygiene in crew spaces.

The completion of 1,891 houses by the Corporation in 1946 is an encouraging advance on the 572 of 1945. The nurse-inspectors report that conditions of cleanliness in the rehousing schemes have not only been maintained but continue to improve. In the city generally, however, there is room for improvement in this respect. Owing to the delays which have occurred in the construction and completion of new houses the Government has undertaken a special survey on a national scale of the capacity of the building industry to produce houses. The result has been issued as the Housing Programme of 1947. Unfortunately the severe winter of 1946-47, the coal problem and the cement shortage made the cancellation of the Programme inevitable. It is more than likely that the housing needs of the community will have to take a lower priority with a consequent postponement of large-scale housing projects. Such a development in Glasgow would negative the hope of any appreciable measure of slum clearance, a project so badly needed and so long delayed. The Report draws attention to two other factors affecting the construction of houses in Glasgow; one is the diversion of housing sites for industrial estates, and the second is the decision of the Secretary of State for Scotland to establish a new town at East Kilbride. It is not surprising then that very little progress has been made in the building programme at the hospitals owing to the many calls on building materials for other purposes.

In presenting this Report, I desire to acknowledge the services of the various contributors. Mr. William M‘Kean, Assistant Secretary to the Department, has, as usual, given much time and care to its preparation and arrangement, while the work of other individual members of the statistical and clerical staff should be specially acknowledged.

Stuart Laidlaw

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REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1946

PART I

SECTION I

POPULATION, Etc.

In the Annual Report for last year the question of the estimated population was dealt with in more detail than usual because of the importance of this figure in relation to the vital statistics of the city. If the estimate is placed too low then the vital statistics rates are automatically increased, whereas if the estimate of the population is increased beyond the actual number, then the rates calculated thereon are fictitiously improved. The estimate of the resident civil population was, therefore, placed at 1,050,000, and it was the intention that this estimate should be gradually increased by the difference of births over deaths for the next 5 years until the figures for the next census become available. However, the total number of electors returned by the City Assessor as at October, 1946, is 787,258, compared with 745,560, a difference of over 40,000. It has therefore been decided to make some adjustment for the return of men and women in the services, especially in view of the fact that this figure has come down during the year from 70,296 to 27,393.

The population for the calculation of vital statistic rates for 1946 has, therefore, been put at 1,075,000. This is above other official estimates, but even then it appears to be below the actual number, as indicated from the following statement recast on the same basis as adopted last year :—

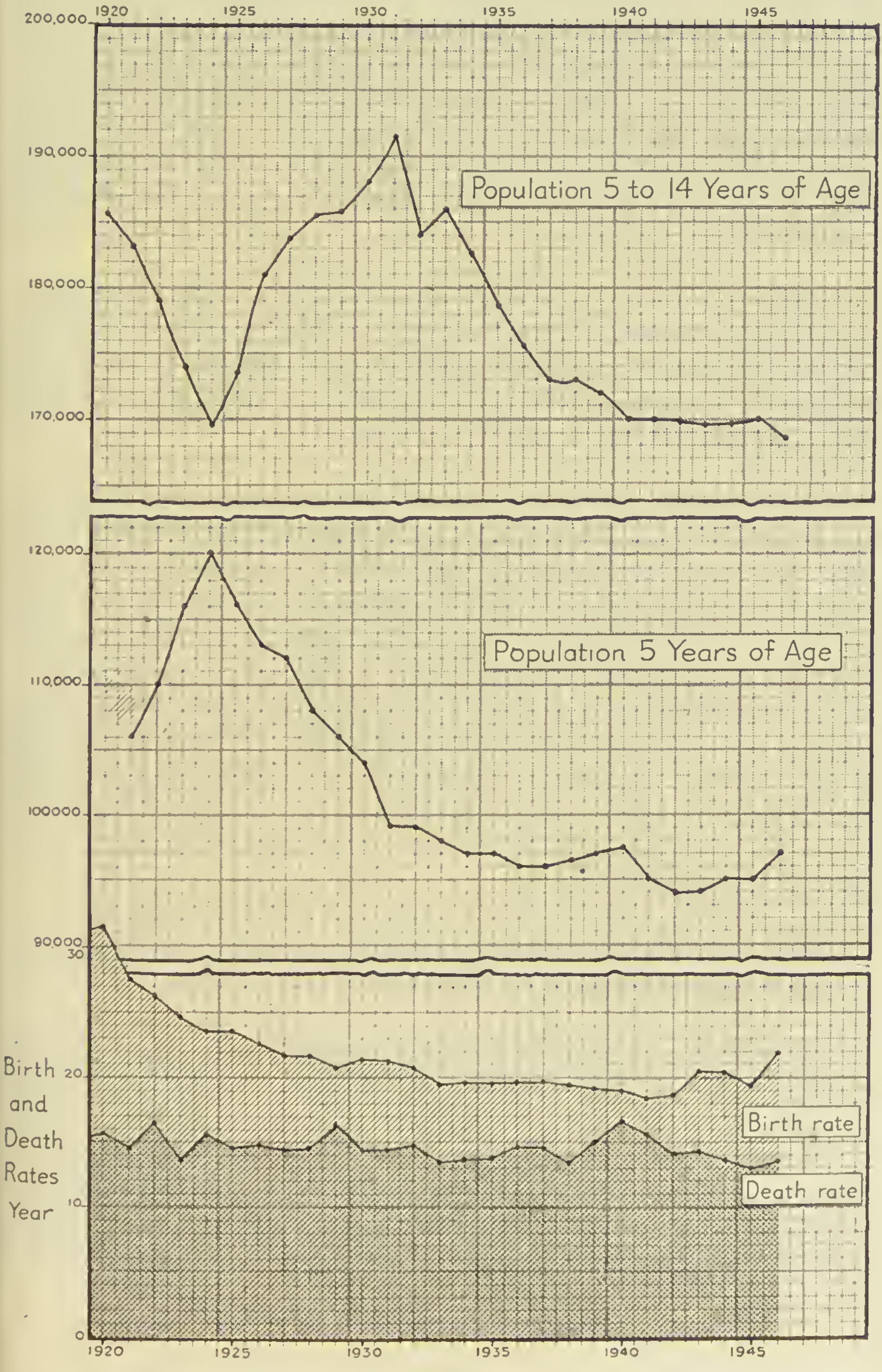
Number of Electorate		787,258	
Less those on Service Register	27,393		
Less Electorate on Business Register ...	6,359	33,752	
		Say	754,500
Estimated Population under 5 years of age			95,500
Estimated Population from 5-15 years			185,000
Estimated Population between 15 and 21 years ...		100,000	
Less conscripted for military service		20,000	80,000
			1,115,000

This statement would seem to indicate that the total estimated population of the city, including those on military service, is around 1,135,000, but as it is expected that deaths occurring among those in the services will still continue to be excluded from local vital statistics, rates will be calculated, as was the case during the war years, on the resident population.

There is, of course, the question of emigration which has not been taken into account. Reference in the press would seem to indicate that there may be between 200,000 and 300,000 persons in Britain who would like to emigrate, mostly to the Dominions, which would mean that on a proportionate basis the number from Glasgow might be in the region of 5,000. This loss would only take place over a period of years because of the lack of shipping accommodation.

The suggestion made a year ago that the population should be gradually increased as industrial conditions became more settled between now and the next census in 1951, is substantiated by the increase in the number of occupied houses, 627, to a total of 289,655 returned by the City Assessor as at Whitsunday, 1946. This total is a corrected figure to include inhabitant occupiers such as caretakers and janitors, and shops, etc., used as dwelling-houses. The population estimated according to the number of occupied houses in each Municipal Ward is given in Appendix Table I on page 150.

GLASGOW—Chart showing (1) estimates of the populations of children under 5 years, and between 5 and 14 years of age, and (2) birth rates and death rates since 1920, indicating the natural increase per thousand of the population.



In the report for last year details of the estimated population of the city at age periods was given, together with pyramid diagrams illustrating the reduction in the population at younger ages and the increasing numbers surviving at the older ages, especially among the females from 55 years upwards. These changes are more or less contingent on the birth rate on the one hand and the death rate on the other. The chart on the previous page shows the reduction that has taken place in the birth rate since 1920, when it was exceptionally high following the 1914-18 war, although at 31·5 it was not greatly in excess of the pre-war birthrate of 28·6. The birth rate gradually subsided until during the '30's when it became more or less stabilised around 20.

With a stationary and ageing population there is not much likelihood of the death rate being further reduced, so that on an average death rate of between 13 and 14 per 1,000 of the population, the natural increase for the city is about 6 per 1,000, or in a population of one million approximately 6,000 per annum.

As indicated above there are quite a few factors to be taken into consideration in estimating the population, but with regard to the child population the estimates can be fairly accurately made from the births occurring each year and the deaths at the various age periods. The annual estimates shown in graph form on the previous page indicate the fluctuations that have taken place consequent on the rise and fall of the birth rate. The population of pre-school children since 1920 has been as high as 120,000 and is now in the region of 95,000, while the child population at school ages, 5-14 years, was over 190,000 in 1931. Now it is down to less than 170,000, a point which it also touched in 1924 because of the reduction in the birth rate during the 1914-18 war.

Ward Population.—The ward distribution of the population varies largely with the number of occupied houses in the wards.

This is shown in Table I of the Appendix. The ward with the largest population is Pollokshields with an estimated number of 52,960, or 2,054 more than the previous year. This increase is due to the completion of a number of houses in the Penilee district of that ward. The estimated population for Ruchill ward is 50,748, or 1,041 more than a year ago. The wards which come next in order of magnitude are Shettleston with 45,386 compared with 44,713, and Provan with

44,832 against 43,524. The largest increase, however, was 3,311 in Yoker and Knightswood ward, while the population in Maryhill is 1,135 more than a year ago. These are all wards on the periphery of the city where the increases have taken place year by year as new houses were built, so that the population has been gradually transferred from the inner ring of wards such as Exchange decreased by 168 since last year, and Blythswood by 391. This movement of the population, consequent on the rehousing mostly in local authority schemes, has had the effect of accentuating the disproportion between the populations of the outer and inner rings of the city, and the matter of altering the boundaries of the wards to effect a more equal distribution has been under consideration by the Corporation.

Institutional Population.—The number of persons resident in institutions, *i.e.*, hospitals, hotels, lodging-houses, etc., is lower, 32,010, compared with 33,102 at the middle of 1945. The ward distribution of these persons is accurately known because a special census is taken in the middle of each year. The largest number is 3,752 in Springburn because three large institutions are situated in that ward. In Blythswood there were 2,955 resident, mostly in hotels and lodging-houses in the centre of the city, while Pollokshields at 2,505 with a considerable number of nursing homes, a large mental hospital, and home for old people, had 155 more than in 1945. In Maryhill there were 2,462 such residents against 1,867 because a considerable number of Dutch troops were billeted there at the end of June. The remaining ward with over 2,000 institutional residents was Exchange, mostly living in common lodging-houses, although the largest number of residents was in the Maternity Hospital.

Acreage.—The area of the city has remained unaltered at 39,725 acres since 1938 when the boundaries were extended and considerable areas of land, mostly unbuilt, were acquired for housing sites. The war has prevented all but small parts of these areas from being utilised for the purpose, so that although the proposed alterations of Municipal Wards to be given effect to shortly will cause some considerable re-distribution of the population in the districts affected, the large peripheral wards are not likely to be altered, except where the populations have increased considerably—for instance, Pollokshields with 4,837, and Provan, 2,935 acres. These areas may be compared with the internal wards such as Woodside, 170 acres ; North Kelvin, 146 ; and Sandyford, 152. The acreage of each Municipal Ward is given in Appendix, Table I.

Density.—The densities of the built-up parts of the city will not be affected by the alteration of ward boundaries. The average density of the city as a whole, now 27 per acre, is rather misleading because there are very few houses built in the landward parts of the outer wards of the city. Wards with no open spaces have high densities, such as North Kelvin with 135 persons per acre ; Townhead, 139 ; and Woodside, 172, although all have broad streets and are typical of many areas in other wards throughout the city where the average densities are lower for the reason that they contain public parks or other open spaces, works, railway sidings, etc.

Occupied and Empty Houses.—In Table II .of the Appendix are given the numbers of occupied houses compared with the figures for the previous year. The total, as adjusted by the City Assessor for inhabitant occupiers, etc., *i.e.* caretakers of buildings, tradesmen in institutions, etc., and shops converted into houses, was 289,655 compared with 289,028 as at Whitsunday, 1945. The increase from the previous year is thus 627, mostly accounted for by increases of 439 in Yoker and Knightswood, 220 in Pollokshields, 93 in Whiteinch, and 91 in Mile End, all wards in which new houses have been erected by the Corporation. A few large houses are still being converted into flats which will account to some extent for the increases in Park Ward, Langside and Cathcart, but in other districts such as North Kelvin and Kelvinside a few of the houses of this type have been vacated. Some of the new houses, however, are of the temporary and prefabricated type, and it is doubtful whether the structure of these will be substantial enough to keep them wind and water proof under the meteorological conditions which obtain in this part of the country. Decreases occurring mostly in wards with derelict properties, a number of which had been condemned by the Master of Works, were Shettleston and Tollcross, 59 ; Gorbals, 52 ; and Calton, 40.

The numbers of occupied and empty houses according to size are given in the following summary and compared with the preceding year :—

	Occupied.		Empty.	
	1946.	1945.	1946.	1945.
One-apartment ...	36,806	36,966	110	148
Two-apartments ...	110,903	110,932	48	41
Three-apartments ...	79,933	79,610	44	27
Four-apartments ...	38,741	38,182	46	23
Five-apartments and over	23,272	23,338	92	109
	289,655	289,028	340	348

Dean of Guild Linings.—The number of linings granted by the Dean of Guild Court during each year to 31st August is given in Appendix Table III. The linings granted for the erection of houses numbered 3,843 compared with 178 for the previous year. Of this total the great majority were 4-apartment houses in Corporation schemes, 2,503, and there were 495 houses of larger size. Three-apartment houses numbered 812, while the 33 one-apartment houses were in respect of a women's hostel in Partick District.

METEOROLOGY.

The weather during the year was on the whole favourable from a health point of view. In the early months there was some variable weather with a certain amount of snow; but there was a period of very sharp frost from the middle to the end of January which may have been associated with a certain prevalence of influenzal pneumonia. There were few lengthy periods of frost, however, and snow, although more frequent than usual, was not excessive. The heaviest fall occurred in March, and with a long period of hard frost snow lay for weeks afterwards.

During the spring and summer the weather was variable with rain becoming more frequent towards the autumn and rather above the average. September was excessively wet with 26 rainy days and a total precipitation of 6·77 inches. The whole country was affected and the heavy crop of cereals throughout the country, especially in England, was very heavily damaged at a time when the production of food was so essential for the country. September was one of the wettest on record but the following month, October, had only 0·61 inches of rainfall and 8 days on which precipitation was recorded. This afforded an opportunity of recovering the heavy harvest of root crops, potatoes, etc. There were 222 days on which rain was recorded, and a total of 39·93 inches compared with 43·62 inches for the previous year. The rainfall was slightly below the average of 40·77 for the previous 10 years.

The average temperature, 47·3°F., was lower than that for the previous year, 48·6°, but just equal to the average of the previous decennium. There were no extremes of temperature, the highest being 77°F. and the lowest 19°, for there were few periods of extended spells of settled weather.

The record of hours of bright sunshine, however, was larger than expected, 1,220, compared with 1,199 for the previous year and an average of 1,107 for the 10 years 1936/45. This higher record of sunshine was due to the large number of hours, 265 recorded in May, when there were persistent east winds. In September there were only 59 hours of bright sunshine associated with rather cold weather conditions.

HEALTH PROPAGANDA.

The Corporation continued its co-operation with representatives of the Insurance Committee of the Burgh of Glasgow in organising health lectures during the winter of 1946/47.

These activities consisted of arranging Central Health Lectures and District Health Lectures, the latter of which were somewhat curtailed because of the severity of the weather during the snow-storms of February and March.

Central Health Lectures.—This series consisted of six lectures, one per month, during the winter period. The meetings were held on Sunday evenings in the Cosmo Cinema and were very well attended. The meetings took the forms of " Health Brains Trusts," " Film Health Talks " or " Commentaries," and one Lecture, all of which were illustrated by films to reinforce the knowledge imparted during the talks. The following are the details of the meetings :—

Date. 1946.	Type of Meeting (and Attendance).	Speakers.
Nov. 3	Health Brains Trust (750) ... ... *Question Master*: Councillor William Reid, J.P.	Dr. A. G. Mearns, Dr. Nora I. Wattie, Dr. Jas. M'Cutcheon, Dr. A. Smith Poole.
Dec. 1	Film Health Talk on TUBERCULOSIS (800) *Chairman*: W. S. Phillips, Esq., M.B.E., J.P., F.C.I.I.	Dr. Stuart Laidlaw, B.Sc., M.D., D.P.H., B.L., D.P.A.
Dec. 22	Health Brains Trust (700) ... ... *Question Master*: Dr. James Dunlop, O.B.E., M.A.	Dr. Kate Harrower, Dr. A. M'Crone, Miss M'Donald, Rev. T. Ralph Morton.
1947.		
Jan. 26	Film Health Talk (700) ... ... *Chairman*: Dr. P. J. O'Hare.	Dr. James Somerville, Dr. Nora I. Wattie.
Feb. 23	Health Brains Trust (700) ... ... *Question Master*: Dr. James Dunlop, O.B.E., M.A.	Dr. Mabel Mitchell, Mr. T. Banks, Dr. J. Beck, Dr. J. Weir Baxter.
Mar. 30	Lecture (850) ... ... *Chairman*: Professor T. Ferguson, F.R.S., B.Sc., M.D., D.P.H.	" New Drugs " by Dr. Thomas Anderson, M.D., Ch.B., F.R.C.P.

Owing to the urgent need for blood donors in Glasgow, the Conjoint Committee approved of the suggestion to co-operate in an appeal to the public, and facilities were afforded to Dr. John Wallace of the Blood Transfusion Service to give a special commentary at the last lecture and to make a request for blood donors to volunteer.

District Health Lectures.—A series of three District Health Lectures was organised in Partick Health Centre. These were held on three successive Tuesdays with the intention that if the experiment was successful in obtaining increasing attendances the course might be extended and repeated in other districts. The following are the particulars :—

Date.	Title (and Attendance).	Lecturer.
Dec. 3	" Public Health and the Increasing Life Span " (50). *Chairman* : Mr. W. N. Pogson.	Mr. William M'Kean.
Dec. 10	" Industry and Medicine " (20) ... ... *Chairman* : Mr. Wm. Wallace.	Dr. Charles Rigg.
Dec. 17	" Nutrition and Health " (50) ... ... *Chairman* : Mr. W. M'Kean.	Dr. James Dunlop.

These lectures were illustrated by appropriate films and epidiascope lantern. It was intended to repeat the course in Govanhill district but, as stated above, the arrangements were delayed owing to the weather and only one lecture could be organised before the Easter holidays.

Date.	Title (and Attendance).	Lecturer.
Apr. 2	" Dietary and Improvement in Health " (120) *Chairman* : Councillor John M'Aslan.	Dr. James Dunlop.

In addition to the above, much health propaganda work was undertaken by members of the medical and other staffs of the Department at the request of secretaries of trade union societies, co-operative guilds, church organisations, etc., etc., and between 300 and 400 of these engagements were overtaken. The Medical staff also delivered many tutorial lectures while the Health Visitors gave frequent talks and demonstrations to mothers attending the health clinics.

BLIND PERSONS ACTS.

During the year under review 448 persons were examined by the Regional Clinic for the first time, of whom 324 were examined at the clinic and 124 at home. In addition 84 applicants were re-examined, making for the year a total of 532 cases examined.

Certified Blind.			Rejected.			Re-examinations.	Grand Total.
Males.	Females.	Total.	Males.	Females.	Total.		
146	181	328	68	52	120	84	532

Of the 448 cases examined for the first time, 73·2 per cent. were certified blind within the meaning of the Act.

Sources of Candidates.—The source of candidates is shown as follows :—

Applicants for Blind Pension	138
Applicants for increased Public Assistance	228
Applicants for Technical Training	13
Applicants for Free Tramway Pass	5
Applicants referred by Mission to Outdoor Blind ...	58
Unclassified	6

As in previous years it will be noted that the largest number examined was in connection with applications for increased Public Assistance.

TABLE A.

Showing the Age, and Sex Incidence of Applicants claiming to be Blind Examined at the Certifying Clinic during the Year 1946.

Age.	Certified.			Rejected.		
	Males.	Females.	Total.	Males.	Females.	Total.
—1	—	—	—	—	—	—
1-4	1	—	1	—	—	—
5-15	2	3	5	1	1	2
16-29	8	5	13	5	1	6
30-39	6	7	13	3	3	6
40-49	21	10	31	9	1	10
50-59	14	20	34	8	8	16
60-69	29	42	71	23	11	34
70+	65	95	160	19	27	46
	146	182	328	68	52	120

From the above table it will be seen that 80·6 per cent. of the applicants were over 50 years of age and 46·0 per cent. were 70 and over. As in 1945 the females outnumbered the males, the reverse of what has occurred during previous years.

TABLE B.

Showing the Allocation of the Applicants Examined during 1946 at the Certifying Clinic among the Local Authorities composing the Joint-Committee for the Blind for Glasgow and the South-West of Scotland.

	Certified.			Rejected.		
	Males.	Females.	Total.	Males.	Females.	Total.
Glasgow	67	85	152	29	25	54
Airdrie	3	2	5	5	1	6
Coatbridge... ...	9	6	15	4	3	7
Hamilton	2	2	4	1	2	3
Motherwell and Wishaw	4	4	8	2	3	5
Rutherglen ...	2	—	2	1	2	3
Other Lanarkshire	10	24	34	8	5	13
Greenock	5	3	8	4	4	8
Paisley	7	14	21	3	2	5
Port-Glasgow ...	2	1	3	1	—	1
Other Renfrewshire	5	13	18	3	2	5
Dumbarton ...	1	1	2	—	—	—
Clydebank ...	4	3	7	1	—	1
Other Dunbartonshire	3	4	7	2	1	3
Falkirk	5	2	7	—	—	—
Stirling	1	1	2	—	—	—
Other Stirlingshire	—	2	2	—	1	1
Ayr	3	3	6	2	—	2
Kilmarnock ...	1	—	1	—	—	—
Other Ayrshire ...	7	5	12	1	1	2
Argyll County ...	3	2	5	—	—	—
Bute County ...	—	2	2	—	—	—
Dumfries Burgh ...	2	3	5	1	—	1
Not stated ...	—	—	—	—	—	—
Total ...	146	182	328	68	52	120

Of the applicants examined 206 or 46·0 per cent. resided in Glasgow, compared with the corresponding percentage of 49·8 during the preceding year.

In 1946, 84 cases were re-examined. The alterations in the decisions of the clinic as a result of re-examination were as follows :—

(*a*) Certified blind on first examination and decision unaltered on re-examination	16
(*b*) Certified blind on first examination and decision reversed on re-examination	4
(*c*) Certified not blind on first examination and decision unaltered on re-examination	17
(*d*) Certified not blind on first examination and decision reversed on re-examination	25
(*e*) Certified blind on second examination and decision unaltered on re-examination	—
(*f*) Certified blind on second examination and decision reversed on re-examination	1
(*g*) Certified not blind on second examination and decision unaltered on re-examination	11
(*h*) Certified not blind on second examination and decision reversed on re-examination	10
Total	84

Follow-up Scheme.—During the past few years a scheme has been in operation to follow up those patients examined at the Regional Clinic and considered by the examining surgeons as likely to benefit from further treatment. The scheme has been made possible by the co-operation of the Mission to the Outdoor Blind for Glasgow and the South-West of Scotland. The home teachers make special enquiries twice yearly regarding such patients and report progress. Where operative or other treatment has been completed, the patient is summoned to the clinic for examination and the improvement or otherwise noted. During the year the teachers investigated 88 cases certified blind with the following results :—

TREATMENT CARRIED OUT.

Treatment Recommended.	No. of Cases.	Still Blind.	Not now Blind.	Total.	Died.	Un-willing.	Unfit.	Others.
Surgical	65	11	14	25	10	15	10	5
Medical	23	9	4	13	4	5	—	1
Total ...	88	20	18	38	14	20	10	6

TABLE C.

CAUSES OF BLINDNESS.

The causes of blindness of the 328 cases certified blind during 1946 are shown in the following table :—

Congenital and Undetermined—	
Congenital anomalies (5) and developmental defects (8)	13
Tumor of globe and orbit	—
Myopia	26
Other errors of refraction	—
Glaucoma, primary	50
Cataract, primary	101
Other primary ocular defects (primary detachment)	2
Infections and Toxic—	
(*a*) Exogenous :	
Ophthalmia neonatorum	4
Trachoma	1
Local septic infection of coats of eye	4
Other local specific infections (gonorrhoea) (mycosis)	—
(*b*) Endogenous :	
Gonorrhoea	—
Syphilis, congenital	7
Syphilis, acquired, including not definitely congenital	8
Specific fevers (smallpox—3) (influenza—1)	4
Meningitis (non-tuberculous), including cerebro-spinal fever ...	1
Tuberculosis	—
Phlyctenular, strumous and similar, not definitely tuberculous ...	5
Septicaemia, acute	1
Septicaemic, chronic ; autotoxic, focal sepsis	35
Other general infections and organismal diseases	1

Traumatic and Chemical—	
Birth trauma	3
Non-industrial trauma	3
Industrial trauma	2
War trauma	3
Trauma, category not ascertainable	—
Chemico-toxic, non-industrial (tobacco) (alcohol) (lead)	—
Scheduled industrial diseases (lead) (pyroxylin) (carbon bi-sulphide) (aniline) (phosphorus) (glass-blowers' cataract) (metal workers' cataract) (miners' nystagmus)	—
Sympathetic ophthalmia	2
Systemic Diseases—	
Anaemia and blood diseases	—
Diabetes	9
Nephritis	—
Pregnancy	—
Vascular diseases, including cerebral vascular lesions	27
Intracranial neoplasm	4
Other diseases of central nervous system	5
Functional disturbances (hysteria) (malingering)	—
Other general diseases	2
Not Ascertainable Definitely	5
Total	328

The largest number is included in the category " Congenital and Undetermined " and the most important individual causes of blindness are still glaucoma, cataract, myopia, septicaemia, and vascular diseases.

LEGISLATION.

The following Acts of Parliament, Regulations, etc., dealing directly with Public Health (in Scotland), or having a bearing thereon, came into operation during the year :—

Water (Scotland) Act, 1946—Makes provision for the conservation of water resources and for water supplies in Scotland, and for purposes connected therewith.

Circulars, Orders, Regulations, Etc., Issued in 1946.

Education—

Department of Health for Scotland. Circular No. 56 of 8/2/46. Provision of Facilities for Recreation and Social and Physical Training.

Department of Health for Scotland. Circular No. 101 of 5/8/46. Annual Selection of Age Groups for Routine Medical Inspection.

Department of Health for Scotland. Circular No. 85 of 8/8/46. Education (Scotland) Act, 1945. Schemes for the Provision of Primary and Secondary Education.

Infectious Disease—

Order No. 865/S. 38 of 19/6/46. Aircraft Regulations (Scotland), 1946.

Maternity and Child Welfare—

Department of Health Circular No. 89 of 12/7/46. Welfare Foods Scheme

Department of Health Circular No. 112 of 3/9/46. Training of Nursery Workers in Nurseries, etc.

Milk—

Department of Health Circular No. 10 of 22/1/46. Scottish Milk Testing Scheme.

Department of Health Memorandum No. 9, Jan., 1946. Scottish Milk Testing Scheme.

Department of Health Circular No. 14 of 1/2/46. Dairy Byelaws—Use of Hypochlorite Solution.

Nursing—

Department of Health Circular No. 19 of 13/2/46. Financial Assistance to Intending Health Visitors.

Department of Health Circular No. 129 of 12/9/46. Scheme for Recruitment of Displaced Persons for Domestic Work in Tuberculosis Sanatoria.

Order No. 840/S. 36 of 13/6/46. Mental Nurses (Employment and Offences) (Revocation) Order (Scotland), 1946.

Order No. 1144/S. 47 of 17/7/46. Nurses (Scotland) Amendment Regulations, 1946 (Christian Science Nurses).

Order No. 1897/S. 68 of 11/11/46. Nurses (Scotland) Amendment (No. 2) Regulations, 1946 (Probationer Assistant Nurses).

Town and Country Planning—

Order No. 1147/S. 48 of 17/7/46. General Interim Development Order (Scotland).

Order No. 1367/S. 54 of 8/8/46. General Interim Development Direction (Scotland).

Tuberculosis—

Department of Health Circular No. 92 of 27/7/46. Tuberculosis Allowances—Effects of Family Allowances Act, 1945.

Department of Health Circular No. 122 of 25/9/46. Tuberculosis Allowances—Winter Allowance for Fuel.

Department of Health Circular No. 139 of 28/11/46. Public Health (Tuberculosis) Regulations (Scotland), 1946.

Order No. 1968/S. 74 of 21/11/46. Public Health (Tuberculosis) Regulations (Scotland), 1946.

Department of Health Circular No. 141 of 2/12/46. Tuberculosis Allowances Scheme—Increase in rates for Dependent Children.

SECTION II.

VITAL STATISTICS.

Although all the particulars of vital and other statistics are given in Tables I to XVIII in Appendix on pages 150 to 173, the principal items are collated in this section for the convenience of reference. The following table summarises the vital statistics referring to the population, etc., of the city compared with the previous year and the pre-war year 1938 :—

SUMMARY.

	1938.	1942.	1943.	1944.	1945.	1946.
Population	1,127,825	1,045,333	1,045,333	1,050,000	1,050,000	1,075,000
Acreage	39,725	39,725	39,725	39,725	39,725	39,725
Persons per acre	28·	26	26	26	26	27
Number of Inhabited Houses ...	280,561	285,562	287,608	288,780	289,028	289,655
Deaths—Number registered ...	16,411	15,610	15,925	15,779	15,112	15,633
Deaths—After correction for Transfers	15,016	14,679	14,824	14,603	13,941	14,502
Births—Number registered	21,960	21,723	23,612	22,695	21,296	25,391
Births—After correction	21,979	20,615	22,363	22,203	20,294	23,560
Death rate per 1,000 living—All causes	13·31	14·04	14·18	13·91	13·27	13·49
Birth rate per 1,000 living ...	19·49	18·76	20·36	20·21	19·33	21·92
Deaths under One Year—After correction	1,919	1,863	1,825	2,108	1,379	1,588
Deaths under One Year—Per 1,000 births	87	90	82	95	68	67

BIRTHS.

The total number of births registered in the city was 25,391, which, after correction for transfers, is reduced to the nett number of 23,560. This indicates that a considerably larger number of births than usual took place in nursing homes to mothers who resided outwith the city. The difference, 1,831, is less than the actual total of these because now with the establishment of a Maternity Unit at Lennox Castle Institution, which is outside the boundary, there is a considerable number of inward transfers.

The nett total of births is the largest number for 20 years and represents a birth rate of 21·9 compared with 19·3 for the preceding year. This comparatively high rate has resulted in some considerable variations throughout the wards of the city. The highest rate recorded was 28·4 in Cowcaddens compared with 23·5 for the preceding year. Other high rates were 27·8 in Gorbals, followed by Kingston with 27·7, while Mile End, Kinning Park and Govan had all rates of over 26. The lowest rate was 14·6 recorded in Kelvinside against 13·0 a year ago, while in Cathcart the rate was 15·1 against 13·6. The greatest increases occurred in the following wards :—Exchange, 5,869 ; Whitevale, 5,405 ; Anderston, 5,380 ; Cowcaddens, 4,911 ; and Hutchesontown, 4,329.

Illegitimate Births.—There were fewer illegitimate births, 1,449 registered during the year against 1,684 in 1945. These numbers form 6·1 and 8·3 per cent. respectively of the total births in the city. The number and percentage in each Municipal Ward is contained in Table V in the Appendix. The highest proportion was 10·5 recorded in Park Ward because of the situation there of some small institutions for unmarried mothers. Other wards with high percentages of illegitimacy were Exchange, 10·3 ; Blythswood, 10·0 ; and Calton, 9·7 ; Woodside and Gorbals both had a percentage of 9·6. The lowest percentages were 1·8 in Langside and 1·9 in Camphill.

MARRIAGES.

The marriage rate, as will be seen in the following summary, has remained very uniform at around 9 per 1,000 persons living since 1870, any annual deviations being largely associated with industrial activities. Abnormal variations however, took place during the World War, even more so than in the 1914-18 war, when the highest rate was 10·3 in 1915. This may be compared with the rate of 13·9 in 1940 and the dip to 9·3 in 1944. In 1946 the rate was 10·3 against 11·9 for 1945, when demobilisation of servicemen took place on a large scale.

Marriages per Thousand Persons Living :

1871-1880	9·1	1938	9·7
1881-1890	9·3	1939	11·7
1891-1900	9·4	1940	13·9
1901-1910	8·8	1941	12·1
1911-1920	9·7	1942	11·9
1921-1931	8·9	1943	9·7
1931-1935	8·8	1944	9·3
1936	9·2	1945	11·9
1937	9·5	1946	10·3

DEATHS.

The number of deaths during 1946 corrected for inward and outward transfers was 14,502, compared with 13,941 in 1945. The death rate was, therefore, 13·49 per 1,000 of the population as against a rate of 13·3 for the preceding year and 13·9 in 1944. The number of deaths and the corresponding rates for 1946 compared with the two previous years are given in Appendix Table VI. The lowest death rate was 10·9 in Springburn, while the next was 11·1 in the contiguous ward of Cowlairs. Other low rates were 11·6 in Dalmarnock and also in Fairfield ward, while Sandyford and Hutchesontown had rates of 12·0. These low rates may be compared with 13·4 in Kelvinside, 13·6 in Camphill, and 14·0 in Cathcart, where apparently the ageing of the population has displaced these wards from the lowest position of former years, probably because of the larger number of the better class resident in these districts.

GLASGOW.—ALL CAUSES.—DEATH RATE PER 1,000 LIVING.

1881-1890	24·22	1936-1940	14·55
1891-1900	21·53	1941	15·59
1901-1910	19·56	1942	14·04
1911-1920	16·36	1943	14·18
1921-1925	15·49	1944	13·91
1926-1935	15·04	1945	13·28
1931-1935	13·88	1946	13·49

Causes of Death.—The number of causes of death are summarised in the following table :—

SUMMARY OF DEATH RATES PER MILLION FROM PRINCIPAL CAUSES.

General Diseases—	1944.	1945.	1946.
(*a*) Infectious	821	513	395
(*b*) Tuberculous—			
(1) Phthisis	1,080	1,033	1,102
(2) Others	279	249	225
(*c*) Malignant (Cancer, etc.)	1,690	1,832	1,767
Diseases of the Nervous System	1,551	1,547	1,514
Diseases of the Circulatory System	3,285	3,375	3,513
Diseases of Respiration	1,126	944	1,123
Congenital Defects and Malformations (including Premature Birth)	818	607	769
Violence	565	527	514
All Other Causes	2,693	2,650	2,568
All Causes	13,908	13,277	13,490

The principal groups of causes of death according to the International Short Classification as given in Appendix Table VIII, are given in the above summary. The principal causes of the increased death rate last year were those in the diseases of the circulatory system and those of respiration, which will be referred to later.

The death rate from infectious diseases of the acute type at 395 per million of the population is the lowest on record and is considerably less than the rate for the previous year, 513. This reduction is largely due to the reduced death rate from diarrhoeal diseases among children under 2 years of age, 274 against 367 for the previous year and 668 in 1944. Smaller reductions have taken place in the mortality from whooping cough and cerebro-spinal fever, and there was only 1 death from scarlet fever. Mortality from the other infectious diseases such as diphtheria, measles, erysipelas, etc., has remained low.

Deaths from tuberculosis are again more numerous, with the increasing incidence of the disease, and will be dealt with later in Section IV of this Report. The death rate from pulmonary forms of the disease in 1946 was 1,102 per million of the population compared with 1,033 for the preceding year. The following table again shows the excess mortality among men at ages over 35 and among women at younger ages under 35. The corresponding figures for the pre-war year 1938 are given for comparison :—

		Males.		Females.	
		1938.	1946.	1938.	1946.
—15 years	...	33	26	31	38
—20 years	...	40	32	74	85
—25 years	...	72	55	93	115
—35 years	...	105	109	115	174
—45 years	...	99	128	52	81
—55 years	...	103	130	32	45
—65 years	...	58	87	20	19
+65 years	...	24	46	9	15
Total	...	534	613	426	572

Non-Pulmonary Tuberculosis.—The death rate from tuberculosis, other than disease of the lungs, has shown a considerable decrease during the past 40 years. This is illustrated in the chart given on the opposite page. For the purpose of the Short Classification of the disease the deaths are tabulated in the following three main groups :—

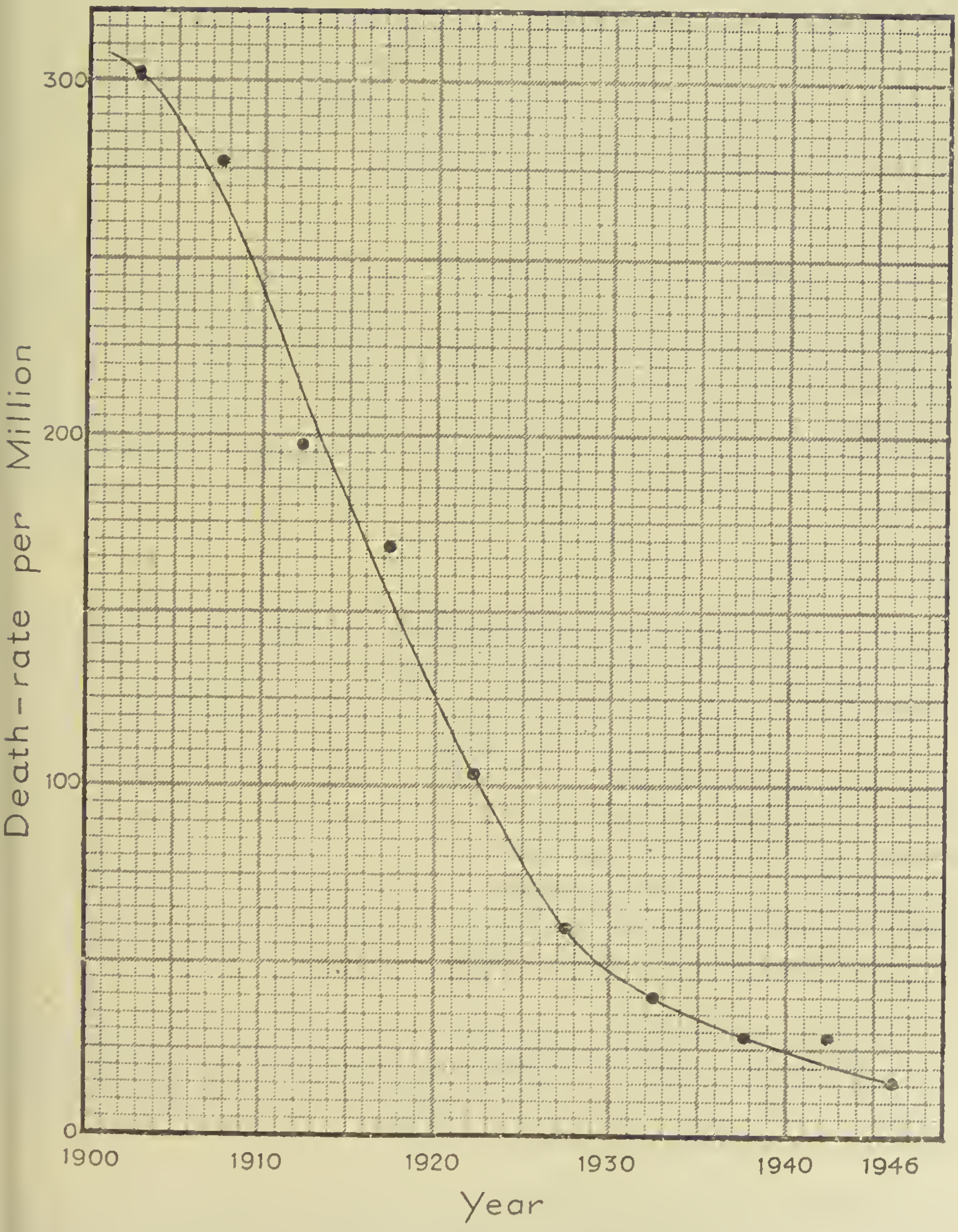
(1) tubercular meningitis ;

(2) abdominal tuberculosis ; and

(3) other non-pulmonary forms, which include glands, spine, bones, and joints, skin, etc.

GLASGOW.—NON-PULMONARY TUBERCULOSIS.

DEATH RATES PER MILLION FOR PERIODS 1901 ONWARDS.



During the 1914-18 war the practice was begun of sampling at the point of delivery milk consigned to the city, usually at the stations or depots, before it was pasteurised or mixed with other supplies. Much of the milk at that time was sold raw to the public and it was found that about 12 per cent. was infected with tubercle bacilli. The continuance of this systematic sampling over the past 30 years has now reduced that percentage to 2, and even this hazard has been reduced considerably by reason of the fact that almost 95 per cent. of milk retailed is now pasteurised. Research work by Professor Blacklock and others just prior to the war established the fact that abdominal tuberculosis resulting from bovine infection in Glasgow was much less than was the case in some other large cities.

The death rate from abdominal tuberculosis during the quinquennium 1906-10 which was 279 per million of the population, fell to 197 in 1911-15 and 103 in the 1921-25 quinquennium. By this time Mearnskirk Sanatorium had been opened for the treatment of non-pulmonary tuberculosis and this would also influence the mortality in a downward direction. There was of course a general fall in pulmonary tuberculosis over this period which would considerably influence the death rate from abdominal disease because of the lessened contact with infection.

The increased incidence of pulmonary tuberculosis has not been without its effect on the higher incidence of tuberculous meningitis during recent years, and this is also illustrated in the chart, but the more accurate diagnosis of the disease has been an important factor in increasing the number of deaths certified as due to tubercle infection. General medical practitioners have been notifying cases as cerebro-spinal fever in order to have them removed to hospital on sociological grounds, for no cure has been discovered—even biochemical research has failed so far in this respect, although some progress has been made with, for instance, streptomycin.

Removal to hospital for the reason stated has developed largely since pre-war days, so that observation in hospital and bacteriological verification has probably increased considerably the number certified as having died from the disease.

Reduction in the death rate from the other forms of tuberculosis such as from glands (adenitis), spine and bone tubercle, etc., has been effected by treatment in hospital and at dispensaries under the scheme which has been developed during the last quarter of a century.

Nervous Diseases.—The mortality rate for this group, 1,514, was slightly below the rates for recent years. Variations in mortality from these diseases is largely determined by the death rate from intracranial vascular lesions, which now include arterio-sclerosis of the nervous system. Both these conditions, which include the great bulk of the deaths, are correlated with the increasing number of people surviving to older ages. Even this factor will be stabilised to a certain extent as the population reaches a stable basis of age constitution with a birth rate remaining about the same level, as has been the case in Glasgow during the past 20 years or more. This might be a reason for the steadying of the death rate from these causes at the present level.

Circulatory Diseases.—This group, which since 1940 includes a proportion of deaths from arteriosclerosis, is also largely governed by the causes just stated, although the mortality is probably subject to more variations on account of adverse meteorological conditions, especially during the winter period. This was probably the cause in 1946 of the increased rate of 3,513, which is in excess of rates for previous years, for there was a period of severe weather during the first quarter. In 1945 the rate was 3,375.

Respiratory Diseases.—The period of adverse weather increased also the respiratory death rate, which was 1,123 per million of the population, whereas the rate was only 944 for the previous year, which was however, the lowest on record. The increase in this group was due to the heavier mortality from pneumonia and influenza which will be dealt with in Section IV of this Report.

Congenital Diseases.—The mortality from congenital malformations, birth injury, etc., and including premature birth, was 769, which is a definite increase on 607 during 1945, but this increase to the extent of two-thirds could be explained by the increase in the birth rate, for the rate should more properly be calculated against the births and not the total population. This will be dealt with in the section of the report dealing with Maternity and Child Welfare, as also the adverse effect of the period of influenza infection during the early months of the year.

Violent Deaths.—The death rate under this heading, 514, showed a further reduction on recent years. The rate for 1945 was 527, but in 1941 during the " black-out " it was 876, and there was also an increase in the deaths associated with industrial accidents, especially amongst the males. The age and sex distribution of the deaths are abstracted here to show where the reduction has taken place.

		Males.					Females.				
		−5	−15	−45	+45	Total	−5	−15	−45	+45	Total
1941	...	45	57	170	361	633	33	28	44	178	283
1944	...	45	66	79	204	394	22	21	33	123	199
1945	...	37	67	77	179	360	25	19	24	125	193
1946	...	29	43	81	201	354	28	10	28	133	199

AGE AND SEX DISTRIBUTION.

The age and sex distribution of the causes of death according to the Short International Classification is given in Appendix Table IX. This as usual shows that most of the mortality for the acute infectious diseases occurs amongst children under 10 years of age, although nowadays this is a comparatively small proportion of the total. Apart from pneumonia which exacts a fairly heavy toll in the first year of life, and premature birth and congenital diseases, most of the remaining mortality begins to increase rapidly from 35 years upwards.

There were 51 male deaths from syphilis against 19 for females. With regard to diabetes, the deaths among females numbered 115 against 55 for males. This excess to some extent may be accounted for by the fact that more females survive at ages over 65, when the heaviest mortality occurs. This observation also applies to nervous diseases, for the deaths of females numbered 900 against 727 males.

Mortality amongst males was heavier from heart disease, especially at ages 45-65. Males are also more prone to death from respiratory diseases.

Digestive diseases are more common among males, the deaths from ulceration of the stomach, etc., being 87 for males and 20 for females, and appendicitis 17 against 15. There were 116 deaths among males from nephritis, while the females numbered 131.

CANCER.

Owing to the importance of cancer as a cause of mortality a special analysis is given each year showing the sex and site of lesion, etc., of the disease. In 1946 there were 1,899 deaths compared with 1,924 for the preceding year. These figures may be compared with the deaths 10 years ago when they numbered 1,612. As will be seen in Table IX in the Appendix, mortality becomes heavier at ages over 50 years and especially from 65 years upwards. For instance comparing the death at ages over 75 years, the number of deaths among males in 1946 was 161 against 91 in 1936, while the corresponding figures for females were 187 and 123. As explained in the Report for last year, mortality over this period has remained fairly constant when allowance is made for the difference in the age constitution of the population.

Male deaths from diseases of the buccal cavity, etc., are always considerably in excess of the females, 60 against 12 in 1946, while the disease of the oesophagus is represented by figures of 41 and 24. Disease of other sites of digestive organs, etc., is more or less equal among the sexes, except with regard to the rectum where it is twice as fatal among men.

Cancer of the respiratory organs was more fatal in 1946, with 307 deaths compared with 225 for the previous year ; and of this total 236 were males and only 71 females. This excess of male mortality is more than balanced by the deaths amongst females with disease of the uterus and genital organs, together with breast cancer, which totalled 298 in 1946 compared with 297 during the preceding year.

The numbers of cancer deaths for each site of lesion compared with the corresponding figures for the previous year are given in the following summary :—

GLASGOW.—DEATHS FROM CANCER.

	Year 1946.			Year 1945.		
Site of Lesion.	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.
Buccal Cavity and Pharynx...	60	12	72	57	14	71
Digestive Organs and Peritoneum—						
(*a*) Oesophagus	41	24	65	48	26	74
(*b*) Stomach and Duodenum	184	182	366	199	193	392
(*c*) Rectum	82	38	120	93	50	143
(*d*) Liver and Biliary Passages	28	39	67	30	40	70
(*e*) Pancreas	27	23	50	35	19	54
(*f*) Peritoneum	3	2	5	4	3	7
(*g*) Other Digestive Organs	170	156	326	175	169	344
Respiratory Organs	236	71	307	178	47	225
Uterus	—	110	110	—	105	105
Other Female Genital Organs	—	46	46	—	32	32
Breast	3	142	145	—	160	160
Male Genito-Urinary Organs	58	—	58	65	—	65
Skin	7	7	14	12	11	23
Other or Unspecified Organs	86	62	148	76	83	159
Totals	985	914	1,899	972	952	1,924

Deaths occurring in the City and transferred to other authorities numbered 1,760, and inward transfers 701, compared with the respective figures of 1,861 and 690 for the previous year.

The deaths occurring in hospitals, nursing homes, and other institutions compared with the respective figures for the preceding year were as follows :—

	1945.	1946.
Local Authority General Hospitals and Poorhouses ...	3,113	3,139
Local Authority Fever Hospitals and Sanatoria	1,142	1,119
Local Authority Mental Hospitals	439	370
Voluntary Hospitals and Infirmaries	1,963	2,026
Nursing Homes, etc.	215	227
Totals	6,872	6,881
Percentage of all Deaths	49·2	47·44

SECTION III.

MATERNITY AND CHILD WELFARE.

During 1946 the Maternity and Child Welfare Department was particularly busy. This increase in the work was in the main due to the increase in the birth rate, which rose from 19·33 in 1945 to 21·92 in 1946. The demand on the services in certain areas is so great that temporary hutted accommodation is to be provided until permanent health centres can be built. One additional clinic has been established—in the Queen's Park area. A dwelling-house in Balvicar Street has been adapted both for ante-natal and child welfare purposes and is proving very satisfactory. Adaptation of hutted civil defence buildings is being carried out which will provide an additional clinic in the Hutchesontown and Gorbals area.

The attendance at the ante-natal clinics was very high. All centres worked under great pressure. Over 16,000 expectant mothers, about 70 per cent. of the total in the city, attended ante-natal clinics during their pregnancy. The number of new patients seen during the year at the child welfare ante-natal clinics was 13,875 as compared with 10,558 in 1945. The value of the service given to women at a well organised ante-natal clinic cannot be over-emphasised. At such a clinic the mother receives not only skilled medical supervision, one result of which is reflected in the low maternal death rate, but also education both in regard to herself and her coming child. All sorts of help and advice are forthcoming at the clinic, and it is at such a clinic that ante-natal care in its wide sense can best be given. It is to be hoped that the future of these clinics will not be jeopardised by the developments under the new Health Act.

Throughout the year all maternity units worked at high pressure. The new ward at Robroyston Hospital was opened towards the end of the year, and the unit at Lennox Castle Institution became a training school for both parts of the C.M.B. examination, which has helped recruitment of staff. There are now about 350 beds for ante-natal and lying-in cases in the various Corporation hospitals, and in 1946 7,228 births took place in these institutions.

The sharp rise in the birth rate has thrown an extra strain on the domiciliary midwifery staffs. Every effort was made to increase the number of municipal midwives, but the general shortage of nurses and midwives made this task difficult. The number of staff was increased slightly, however, and there are at present 52 midwives, which includes the non-medical supervisor staffs. The number of births carried out by these midwives was 3,719 in 1946 as compared with 3,190 in 1945.

The Spring of 1946 saw the cessation of the scheme for the provision of wartime day nurseries whereby local authorities received 100 per cent. grant from the Government for this service. With the return of many women to home duties, a certain curtailment in the nursery provision was made. There are now 15 day nurseries and one 24-hour nursery. Two nurseries have been converted into convalescent homes for children under five years, and two as short-stay residential homes. The latter is a new development in the child welfare scheme. To these homes are admitted children under five years whose parents, usually because of the illness of the mother, are unable temporarily to care for them. No child is allowed to stay longer in the home than two months, and the average stay is about one month. The provision is proving an extremely useful social measure in the interests of family life, and is being widely taken advantage of by all classes of citizens.

One of the most gratifying features of the work of the Department is the success of the Home Help Service. Details of its expansion and general working are described in this section. Suffice to say this. The choice of person to administer the scheme from day to day is extremely important. The success of any scheme depends largely on their personality and efficiency. At the peak period in the winter over 400 helps were on duty, and it has been proved that the provision of such a service is an extremely useful social measure and one that is necessary in the interests of family life and society.

Throughout the year the staff, both medical and nursing, gave many lectures and took part in other forms of health propaganda. The public are showing an increasing interest in health matters in general, and in child welfare and parenthood in particular.

INFANT MORTALITY.

The number of deaths of infants, after correction for inward and outward transfers, was 1,588 compared with 1,379 for the previous year, an increase of 249 : but as the births numbered 23,560 against 20,294 in 1945, the mortality per 1,000 births is lower, 67 compared with 68. This is the lowest infant mortality rate recorded in the city.

The following summary gives a comparison of the rate with those of previous years :—

1939	80	1943	82
1940	95	1944	95
1941	111	1945	68
1942	90	1946	67

The rates previous to 1939 were usually in the region of 100 or more and these are given in the last column of Table XVIII in the Appendix.

Details of the causes of male and female deaths for each quarter during the first year of life are given in Appendix Table XII. The information there given is summarised in the following statement, which shows the relative magnitude of the principal group of causes of death, compared with the rate for previous years since 1911.

MALES—

Rate per 1,000 Births.

	Causes of Death	1911-20	1921-30	1931-35	1936-40	1941-45	1946
I.	Immaturity	46	41	43	44	42	39
II.	Diseases of Respiratory System	29	32	30	25	18	14
III.	Diseases of Digestive System	20	15	17	19	24	14
IV.	Diseases of Nervous System	9	7	4	4	5	4
V.	Tuberculous Diseases	5	2	1	1	1	1
VI.	Infectious Diseases ...	15	14	12	6	4	2
VII.	Suffocation	1	—	—	—	—	—
VIII.	All other causes ...	11	8	7	6	5	2
	All causes ...	136	119	114	105	99	76

FEMALES—

Rate per 1,000 Births.

	Causes of Death	1911-20	1921-30	1931-35	1936-40	1941-45	1946
I.	Immaturity	36	33	33	35	34	29
II.	Diseases of Respiratory System	23	23	23	21	14	10
III.	Diseases of Digestive System	16	11	12	13	16	11
IV.	Diseases of Nervous System	7	4	3	3	4	3
V.	Tuberculous Diseases ...	3	2	1	1	1	1
VI.	Infectious Diseases ...	15	13	11	6	4	1
VII.	Suffocation	1	1	—	—	—	—
VIII.	All other causes ...	8	7	5	4	3	3
	All causes ...	109	94	88	83	76	58
	Ratio—Males to 100 Females	124	128	131	126	130	131

The above tables seem to indicate that with the reduction in the infant mortality rates in the city the excess of male to female deaths is maintained at the higher level of 130 per cent, compared with an approximate percentage of 125 when the rate is above 100. This pathological fatality largely determines the variation in the rates of infant mortality from year to year because of the proportion which it bears to the total rate. It comprises almost all the neo-natal mortality and in 1946 deaths ascribed to the immaturity causes numbered 804 or 51 per cent. of the total infant mortality. The great bulk of this neo-natal mortality is due to premature birth, which is described as the cause of death of 240 males and 198 females.

The death rate for the immaturity group among males is 39 compared with 32 for the preceding year, which was an exceptionally low rate, while the corresponding figures for females are 29 and 28.

The next important cause of infant mortality used to be diseases of the respiratory system, but on the average of recent years deaths from digestive diseases form a more fatal group. This change has resulted largely from the reduction in the fatality of respiratory diseases, although the rates for 1946, namely 14 for males and 10 for females, were both above the low rates of 11 and 8 respectively for the preceding year. The respiratory death rate among infants, however, is now less than half those of years previous to the war period. More than a quarter of these deaths occurred in the first month of life and over a half within three months of birth.

With the digestive diseases the mortality occurs later, for nearly one-third of the deaths take place between the age of 3 and 6 months, and most of the remaining mortality occurs between 6 and 9 months, when infants are usually weaned. The mortality rate for males is always above that of females, and in 1946 the rates were 14 and 11 respectively compared with the corresponding figures of 22 and 14 for the previous year.

Nervous disease, mostly composed of convulsions, still takes a steady toll of around 4 per 1,000 births, although this is little more than half the rates obtaining prior to 1930. Mortality from infectious diseases has shown a definite reduction over the past 30 years, the rate for 1946 for males being 2 and females 1, compared with 15 for both sexes during the decennium 1911-20. The diseases which were most fatal were cerebro-spinal fever, 12 deaths; whooping cough, 11; and measles, 10; a total of 33. The remaining 2 deaths in this group were from diphtheria.

Pulmonary tuberculosis caused 13 deaths; tuberculous meningitis, 13; and other forms, 4. There was no death from abdominal tuberculosis, and it will be seen from the table on page 27 the rate has remained around 1 per 1,000 births for each sex during the past 15 or 20 years. Syphilis was the cause of 4 deaths against 2 a year ago; overlaying, 8 compared with 3; and other violence, 17 against 12 for the previous year.

Infant mortality in wards.—The ward distribution of deaths, and corresponding rates compared with previous years are given in Appendix Table XI. In only one ward of the city was the rate in excess of 100, namely Partick (East) with 112. In the contiguous ward of Kelvinside the infant mortality was 25, and a comparison is here introduced showing the causes of mortality in the two wards :—

	Partick (East)	Kelvinside
Cerebro-Spinal Fever	2	—
Whooping Cough	2	—
T.B. Respiratory	1	—
T.B. Meningitis	1	—
Measles	1	—
Nervous Diseases	5	1
Heart Disease	1	—
Pneumonia	6	1
Diarrhoea	8	1
Other Digestive Diseases	1	—
Prematurity	10	2
Congenital Malformations, etc.	16	5
Other Defined Causes	3	—
	57	10
Number of Births	507	400

As recently as 1944 15 of the 38 Municipal Wards had rates in excess of 100. Apart from Kelvinside other low rates were Camphill, 26; Park, 34; Cowlairs and Whiteinch, both 40; and Cathcart, 42.

It is satisfactory to report that coincident with the reduction in the infant mortality rate, the mortality among toddlers between 1 and 5 years has shown an even greater reduction, as shown in the following table. The mortality at these ages was only one-eleventh of that occurring in 1900.

Year	*Infant Mortality Rate per 1,000 Births*	*Deaths 1-5 Years: Actual Number*	*Rate per 1,000 Population at Ages 1-5 Years*
1900	153	2,754	39·2
1911	139	1,862	26·7
1921	106	1,494	19·2
1931	105	1,341	17·2
1938	87	753	9·8
1943	82	394	5·3
1946	67	276	3·6

Illegitimate Mortality.—There were 139 infant deaths among the 1,449 illegitimate births, which is equivalent to an infant mortality rate of 96. The corresponding rate for the preceding year was 92.

Notification of Still Births.—The number of still births registered in the city during the year was 995 compared with 800 for the preceding year. There were 138 outward and 29 inward transfer still births, so that the net total for the city was 886 against 730. This is equal to 3·6 per cent. of the births compared with 3·5 in 1945.

From information obtained regarding still births reported under the Notification of Births Acts, it is found that 13·1 per cent. of all births in the practice of doctors were still births, and of those medically attended in institution 4·7 per cent. Together the rate indicated is 4·4. Among non-medically attended births the corresponding rate was 2·0. Detailed statistics are given in Appendix Tables XIII and XIV.

CHILD WELFARE SCHEME.

Difficulties in obtaining materials have contributed to the slow progress made with the conversion of the hut erected for Civil Defence purposes during the war in Fauldhouse Street. The intention was to provide auxiliary child welfare facilities in Hutchesontown district in order to relieve the pressure on the Gorbals Clinic in Florence Street. A block plan showing the accommodation to be provided was given in the Annual Report for last year.

As already mentioned, work was put in hand for the conversion of part of the accommodation in the police buildings in Balvicar Street for the provision of a Child Welfare Clinic in Queen's Park district. The accommodation did not become available until 1947.

During the year the Committee accepted the offer from the Elderpark Child Welfare Centre of the Anne Weir Play Centre for continuation of the accommodation as an additional centre in Govan district.

The need for accommodation of young children in households where the mother requires to go into an institution for confinement or operation has been a problem for many years, so that when the government intimated that the War-time Nurseries were no longer required, the opportunity was taken of reserving accommodation for this purpose in the two large houses at 9 and 21 Winton Drive. Each of these nurseries have accommodation for 30 children. The children must be under school age, namely 5 years of age, and are not retained for more than a month, except under special circumstances.

There are now 17 centres throughout the city, 13 of which are situated in premises specially constructed for the purpose, while 2 more are held in suitable accommodation in administrative buildings. Alterations require to be made from time to time in the sessions held at the clinics for various purposes, and during the year a forenoon session at Provan Clinic was discontinued and the child welfare session at Shettleston altered to one for ante-natal purposes. An additional ante-natal session was also started at Possilpark Centre (Denmark Street). The total number of sessions is now 106, which includes 39 ante-natal clinics, 62 child welfare sessions and 5 ultra violet ray treatment. In addition, ante-natal and child welfare clinics still continue to be held at the Royal Maternity Hospital.

The time table of the clinics as now organised is given below and on page 32.

LIST OF MATERNITY AND CHILD WELFARE CLINICS.

	9 a.m.	1.30 p.m.
AY,	15 Glenbarr Street, Provan.	15 Glenbarr Street, Provan (Ante-natal).
	106 Orr Street.	Sandy Road, Partick (Ante-natal).
	26 Florence Street.	60 Avenuepark Street.
	2 Summertown Road, Govan (Ante-natal).	106 Orr Street.
	20 Arklet Road, Elder Park (Ante-natal).	26 Florence Street.
	33 Richard Street (Ante-natal).	2 Summertown Road, Govan (Ultra-Violet Ray).
	Sandy Road, Partick (—1 year).	614 Dobbie's Loan (Ante-natal).
	26 Florence Street (Ante-natal)	194 Fernbank Street, Springburn.
	194 Fernbank Street (Ante-natal)	15 Glenbarr Street (Ultra-Violet Ray).
	150 Wellshot Road, Shettleston (Ante-natal).	101 Denmark Street.
		150 Wellshot Road, Shettleston.
		Craigmuir Road, Penilee (Ante-natal)

	9 a.m.	1.30 p.m.
TUESDAY,	33 Richard Street (1-5 years). 194 Fernbank Street, Springburn. 60 Avenuepark Street (Ante-natal). 150 Wellshot Road, Shettleston. 15 Glenbarr Street, Provan. 2 Summertown Road, Govan. 106 Orr Street (Ante-natal). 26 Florence Street 614 Dobbie's Loan. 132 Weir Street. 20 Arklet Road, Elder Park (Ante-natal). 18 Plean Street, Blawarthill	33 Richard Street (Ante-natal). Sandy Road, Partick (—1 year). 614 Dobbie's Loan (Ante-natal). 106 Orr Street. 150 Wellshot Road, Shettleston. 26 Florence Street (Ante-natal). 20 Arklet Road, Elder Park (Ante-nat 26 Florence Street. 101 Denmark Street. 33 Harriet Street. 150 Wellshot Road, Shettleston (Ante-na
WEDNESDAY,	33 Richard Street (—1 year). 60 Avenuepark Street. 614 Dobbie's Loan. 18 Plean Street, Blawarthill. 106 Orr Street (Ante-natal). 33 Harriet Street. 2 Summertown Road, Govan (Ultra-Violet Ray). 150 Wellshot Road, Shettleston. 15 Glenbarr Street, Provan. Craigmuir Road, Penilee (Ante-natal).	18 Plean Street, Blawarthill (Ante-nat 194 Fernbank Street, Springburn (An natal). 106 Orr Street. 26 Florence Street (Ante-natal). 2 Summertown Road, Govan. 150 Wellshot Road, Shettleston. 33 Harriet Street. Craigmuir Road, Penilee.
THURSDAY,	614 Dobbie's Loan. 106 Orr Street (Ante-natal). 15 Glenbarr Street (Ante-natal). 26 Florence Street. 132 Weir Street. 33 Richard Street. 2 Summertown Road, Govan (Ante-natal). 194 Fernbank Street, Springburn. 112 Ingram Street. Sandy Road, Partick (Ante-natal). Craigmuir Road, Penilee.	Sandy Road, Partick (1-5 years). 60 Avenuepark Street (Ante-natal). 614 Dobbie's Loan. 106 Orr Street. 150 Wellshot Road, Shettleston (An natal). 26 Florence Street. 132 Weir Street. 2 Summertown Road, Govan (An natal). 26 Florence Street (Ante-natal). 15 Glenbarr Street (Ultra-Violet Ray) 101 Denmark Street (Ante-natal)
FRIDAY,	18 Plean Street, Blawarthill. 101 Denmark Street (Ante-natal). 614 Dobbie's Loan (Ante-natal). 60 Avenuepark Street. 106 Orr Street (Ante-natal). 150 Wellshot Road, Shettleston. (Ante-natal). 26 Florence Street. 2 Summertown Road, Govan. 15 Glenbarr Street, Provan. 33 Richard Street.	614 Dobbie's Loan. 106 Orr Street. 101 Denmark Street 2 Summertown Road, Govan (Ult Violet Ray). 20 Arklet Road, Elder Park. 15 Glenbarr Street, Provan. 33 Harriet Street (Ante-natal). 18 Plean Street, Blawarthill (Ante-nata 150 Wellshot Road, Shettleston 26 Florence Street (Ante-natal). Craigmuir Road, Penilee.

Elderpark Infant Consultations—Monday, Wednesday and Thursday at 1.30 p.m.

Maternity Hospital Ante-Natal Clinics—Daily, Monday to Friday, at 1.30 p.m., Saturday, 9.30 a.m. —1 Year Clinics, Monday, Wednesday and Friday, 9 a.m.

Vaccination is also done at 20 Cochrane Street on Tuesdays at 12 noon.

The number of consultations held during 1946 was 3,290 compared with 3,231 for the preceding year and the total number of attendances at these consultations was 149,456, compared with 145,171 during 1945. The number of infants under one year attending for the first time was 10,413, compared with 9,299 for the preceding year, while the corresponding figures for subsequent attendances were 107,290 and 107,142. The number of children over one year attending for the first time was 1,171, compared with 1,212, and the subsequent attendances numbered 30,582, against 27,518.

The following table gives the attendance at each consultation centre during 1946, with the corresponding total figures for the previous year:—

ATTENDANCES AT INFANT CONSULTATIONS, 1946.

	No. of Consultations held.	Children—1 year. No. of Attendances.		Children+1 year. No. of Attendances.		Total No. of Attendances.		1945—Total No. of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub
orbals ...	355	1,464	14,210	178	2,987	1,642	17,197	1,479	18,438
owcaddens	256	511	5,400	70	1,776	581	7,176	528	6,219
der Park ...	200	707	8,013	40	2,325	747	10,338	675	9,375
ovan ...	154	525	5,257	73	1,988	598	7,245	559	6,834
rovan ...	252	668	5,639	93	1,783	761	7,422	727	7,449
rr Street ...	299	1,450	13,186	165	3,309	1,615	16,495	1,323	15,207
aryhill ...	150	510	5,020	55	1,210	565	6,230	543	6,199
rtick ...	151	448	4,376	47	1,433	495	5,809	514	6,279
chard Street	206	521	5,046	49	1,296	570	6,342	476	6,752
ettleston ...	301	1,063	12,972	101	5,098	1,164	18,070	1,059	16,291
eir Street ...	156	405	4,682	39	1,425	444	6,107	318	5,526
gram Street	52	88	754	19	354	107	1,108	82	1,145
ringburn ...	152	394	4,754	24	1,223	418	5,977	422	6,210
awarthill ...	154	580	3,992	46	1,275	626	5,267	593	5,069
llokshaws...	151	365	4,930	48	1,208	413	6,138	383	5,755
nmark Street	149	431	5,091	20	459	451	5,550	417	6,395
nilee ...	152	283	3,968	104	1,433	387	5,401	413	5,517
	3,290	10,413	107,290	1,171	30,582	11,584	137,872	10,511	134,660

Supply of Milk to Mothers and Children.—Since August, 1940, supplies of milk for expectant and nursing mothers and children under five years of age have been distributed under national arrangements, and the only function falling upon the department in connection with that scheme is to distribute application forms through the Child Welfare Centres. A small amount of certain vitaminised dried milk continues to be supplied from the Centres but the majority of artificially fed infants are being given national dried milk.

The total number of packets supplied free was 2,415, representing a cost of £231 8s. 9d.

Where family income was above the scale of necessity, 102,741 packets were supplied at cost price to mothers and children.

It is gratifying to note that there has been an increase in the amount of dried milk taken up. Every opportunity is taken to teach the mothers the advantages of dried milk over liquid milk in the feeding of young infants.

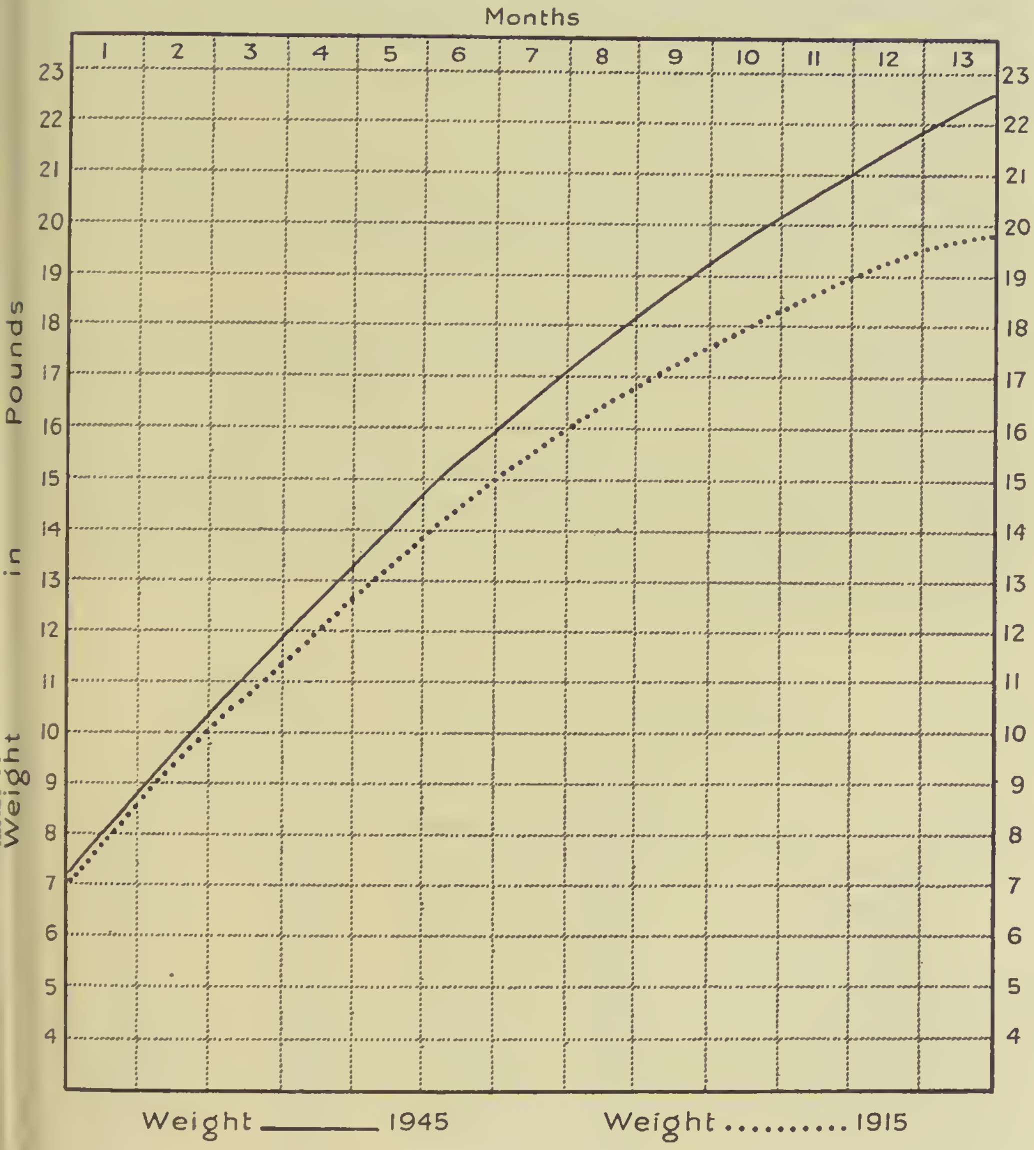
Dietary supplements as shown below were also issued from the Centres :—

	Lbs.	Cost.
Cod Liver Oil	2,565	£426
Cod Liver Oil Emulsion ...	4,017	189
Chemical Food	6,252	218
Sundry Foods	169	15
	13,003	848

During the 1914-18 war when milk was in short supply, a scheme was introduced here for giving milk at reduced prices to nursing mothers and for the feeding of young children. Later this was supplemented to a very large extent by dried milk imported from one of the Dominions. These supplements continued after that war and were latterly augmented on the instruction of the government by special issues of cod liver oil, etc.

During the recent war the government, recognising the need for adequate nourishment of expectant and nursing mothers, augmented these supplies of special food, etc., and gave them a priority which ensured that sufficient nourishment would be available at a period so important in the proper development of healthy infants.

COMPARISON OF WEIGHTS OF INFANTS UNDER ONE YEAR OF AGE ATTENDING CHILD WELFARE CENTRES.



The benefits which have accrued from this scheme are evident in the lowering of the infant mortality rate throughout the country and the considerable reduction which has taken place in maternal mortality. Coincident with this reduction there has been an improvement in the health of young infants and this is shown in the increase of both heights and weights of infants and toddlers. The chart on this page gives a diagram of the weights of present-day infants compared with the results of a similar enquiry which was made shortly after the First World War. This indicates that although the children at birth are slightly heavier, while at the age of six months they are nearly 1 lb. heavier, and at the end of the first year over 3 lbs. heavier than they were at the same age 25 years ago. Their heights have also correspondingly increased.

The booklet " Health of Mother and Child " in its enlarged form, continued in demand at the Centres, and 6,875 copies were sold during the year. Large numbers were supplied to other Local Authorities in England and Scotland by special arrangement.

Ante-Natal Consultations.—Sessions at ante-natal clinics numbered 1,933, compared with 1,847 for the preceding year. The total attendances were 94,974, compared with 70,068 in 1945; primary attendances were 13,874, or 3,316 more than in the previous year (1945); subsequent attendances numbered 81,000, an increase of 21,590. Consultations and attendances at each of the Centres are shown in the following table :—

ATTENDANCES AT ANTE-NATAL CLINICS, 1946.

	No. of Clinical Sessions.	Number of Attendances.		
		Primary.	Subsequent.	Total.
Partick	100	708	3,614	4,322
Cowcaddens	151	783	4,288	5,071
Maryhill	104	794	4,270	5,064
Springburn	98	415	2,635	3,050
Bridgeton	206	1,835	11,929	13,764
Shettleston	187	1,305	8,752	10,057
Gorbals	251	2,113	13,515	15,628
Govan	152	1,469	8,130	9,599
Elderpark	151	1,085	6,349	7,434
Anderston	99	802	3,689	4,491
Blawarthill	100	639	3,549	4,188
Provan	100	813	4,099	4,912
Pollokshaws	50	332	1,757	2,089
Denmark Street	86	513	2,789	3,302
Penilee	98	268	1,735	2,003
	1,933	13,874	81,100	94,974

In addition to the above, ante-natal consultations were carried on at the four municipal hospital out-patients departments, namely, Stobhill Hospital, Southern General Hospital, Eastern District Hospital, and Western District Hospital. The new cases registered at these consultations during 1946 numbered 2,833, and they made 11,066 attendances. The corresponding figures were 2,645 and 8,663 in 1945 respectively.

Among the 11,975 patients whose pregnancy terminated in 1946 (excluding abortions) 35 deaths occurred, giving a death-rate of 2·9 per thousand births compared with 3·3 for the year 1945. There were 5 deaths from puerperal septicaemia. Deaths among the other 30 patients were as follows :—

Toxaemias of Pregnancy	3
Other Diseases and Accidents of Pregnancy	1
Haemorrhage of Childbirth and the Puerperium	10
Puerperal Toxaemias	3
Other Accidents of Childbirth	4
Tuberculosis of Respiratory System	3
Heart Disease	2
Other Circulatory Diseases	1
Nervous Diseases	1
Respiratory Disease	1
Ectopic Gestation	1

Excluding the 8 deaths which had little association with the puerperal state, the maternal death-rate of mothers attending the clinics was 2·2, compared with 2·82 for the city as a whole.

The total number of cases attending the ante-natal dispensary of the Maternity Hospital for the first time was 4,117, compared with 3,292 in 1945, and the total attendance 21,619, as against 16,990. Of the 2,721 cases treated to a termination in delivery, 578 were treated in their own homes. There were 1,260 admissions to the ante-natal wards. At the infant consultations held at the hospital there were 2,800 attendances as compared with 2,750 in 1945.

Dental Treatment of Expectant Mothers.—The scheme approved by the Corporation in 1935 to provide dental treatment for necessitous and partly necessitous mothers in need of treatment was continued. Applications for treatment numbered 902, an increase of 138 from 1945. Of these, 742—or 82·3 per cent.—were wholly or partly necessitous. The charges made in partly necessitous cases are determined by a scale of necessity approved by the Corporation. Attendances totalled 4,335, of which 894 were first attendances. Extractions made numbered 6,218, and 903 dentures were completed. Scaling, filling, dressing, and other work necessitated over 1,475 attendances of patients.

Maternal Mortality.—The following statement showing the maternal mortality deaths and rates is from figures supplied by the Registrar-General :—

STATEMENT SHOWING MATERNAL DEATHS AND RATES PER 1,000 BIRTHS IN GLASGOW AND SCOTLAND IN THE YEARS 1942-1946.

	Deaths.					Rate per 1,000 Births.				
	1942.	1943.	1944.	1945.	1946.	1942.	1943.	1944.	1945.	194
Accidents of Pregnancy...	2	5	6	6	15	0·09	0·22	0·26	0·28	0·61
Puerperal Haemorrhage	16	34	13	11	21	0·74	1·47	0·56	0·52	0·86
Puerperal Septicaemia, including Post-abortive Sepsis	56	43	38	24	15	2·57	1·86	1·56	1·14	0·61
Toxaemia of Pregnancy, Albuminuria Convulsions	21	19	20	14	12	0·96	0·82	0·87	0·67	0·4
Other Puerperal Diseases	16	19	15	18	6	0·74	0·82	0·65	0·86	0·2
Totals— Glasgow ...	111	120	92	73	69	5·10	5·19	3·99	3·47	2·
Scotland ...	380	364	294	249	237	4·1	3·7	3·0	2·8	2

During the year 69 deaths occurred from maternal causes, equivalent to a rate of 2·82 per 1,000 live and still births, which compares with a rate of 3·47 for the previous year. The rates prior to 1940 are based on the live births only.

ULTRA-VIOLET RAY CLINICS.

No alteration has taken place in the arrangements for light treatment of children suffering from rickets, malnutrition, etc.

The installation and the results of treatment have been fully dealt with in previous reports, so that only the records of numbers treated are here given in respect of 1946 :—

RECORD OF ATTENDANCES AND CONSULTATIONS DURING 1946.

	Number of Clinics held.	Children —1 year. Number of Attendances.		Children +1 year. Number of Attendances.		Mothers. Number of Attendances.		Total Number of Attendances.	
		Prim.	Sub.	Prim.	Sub.	Prim.	Sub.	Prim.	Sub.
Provan ...	100	13	147	301	6,689	8	42	322	6,878
Govan ...	148	86	708	485	10,025	4	63	575	10,796
	248	99	855	786	16,714	12	105	897	17,674
		954		17,500		117		18,571	

INFANT VISITATION.

Under the scheme of infant visitation every birth is visited if the notification does not state that a medical practitioner has been in attendance, and the following table shows the record of those visited, together with certain information obtained :—

	1944.	1945.	1946.
Inquiry Cards returned	17,929	16,869	19,319
Full information obtained	17,539	16,524	18,947
Doctor found in attendance	1	—	—
Others	389	345	372
Inquiry Cards issued	17,942	16,728	19,713

VISITATION BY NURSES.

Altogether the health visitors made 183,691 home visits during the year, compared with 208,625 during the preceding year. Of these totals the respective numbers for infants under one year of age were 79,718 and 88,973. First visits numbered 19,599. In addition 57,385 visits were made to houses in respect of toddlers, while 9,127 other toddlers were seen during the course of routine visitation of infants. Other visits were made for special enquiries, etc., as shown in the following table :—

Visits Made by Nurses.

	1945.		1946.	
Infants under one year—Primary visits ...	15,185		19,128	
Infants under one year—Subsequent visits	73,788		60,590	
		88,973		79,718
Children one to five years		63,675		57,385
Children seen while visiting infants ...		12,489		9,127
Ophthalmia Neonatorum		2,636		2,429
Puerperal Fever		18		657
Maternal Deaths Enquiries		3		99
Infant Deaths		114		471
Ante-natal Visits		5,266		6,132
Venereal Diseases		210		213
Light Treatment		540		765
Pneumonia		9		22
Other Visits		1,352		974
Houses Shut		33,340		25,699
		208,625		183,691

In addition to home visitation, the nurses attend the Child Welfare and other consultations in their own districts. They thus have an opportunity of reporting to the doctor any illness or condition requiring medical treatment and following up cases afterwards to see that the treatment recommended is carried out.

DAY NURSERIES AND COUNTRY HOMES

Since the cessation of hostilities the government, in the process of gradually reducing the organisation built up during the war, intimated that the War-time Nurseries not normally required for peace-time industrial conditions could be reduced. The government grant was, therefore, lowered from 100 per cent. to 50 per cent. in respect of nurseries which it was found necessary to retain. In cutting down the nursery accommodation the premises which were not the most suitable for permanent use were closed, as shown in the following statement. Four of the nurseries were transferred to the Education Department.

	Closed down
Central—	
Atholl House	31/3/46
Bowmont Terrace	31/3/46
*Fortrose Street	31/3/46
Grosvenor Crescent	31/3/46
Hatfield Drive	31/3/46
4 Hughenden Terrace	31/3/46
6 Hughenden Terrace	31/3/46
Prince Albert Road	31/3/46
*Renfrew Street	12/2/46
University Gardens	26/7/45
Westbourne Gardens	31/3/46
Westland Drive	26/1/45
North—	
*Ann Street	31/3/46
*Belhaven	31/3/46
Eastpark	30/6/45
Kelvin Drive	28/1/46
Lansdowne Crescent	31/3/46

	Closed down
South-East—	
May Terrace, Mount Florida	7/1/45
Sinclair Drive	31/3/46
South-West—	
Newark Drive	31/3/46
Nithsdale Road	31/3/46
Woodrow Circus	31/10/45
Residential Nurseries—	
Knapps, Kilmacolm	25/3/46
Sandspoint, Kilmacolm	30/5/46

*Transferred to Education Authority

There are now 15 nurseries in operation, including the three original day nurseries of Bridgeton, Kingston and Cowcaddens, and the attendances during 1946 are shown as follows :—

NURSERY	No. of Days Open	Attendances during the year	Average	Maximum No. in One Day	Accommodation for
Bridgeton	255	8,645	36	48	50
Kingston	252	8,937	39	43	40
Cowcaddens ...	252	9,263	37	46	45

WAR-TIME DAY NURSERIES

NURSERY	Opening Date.	Days Open.	Total Attend. for Year.	Average Daily Attendances.	Max. No. in one Day.	Accommodation for.
Central—						
Gt. Western Road	21/10/42	316	8,663	40	48	40
Sandyford Place ...	2/3/43	304	11,866	39	57	50
North—						
Hamiltonhill ...	18/10/43	305	10,738	42	53	45
East—						
Crail Street ...	18/10/42	299	9,806	36	46	50
Onslow Drive ...	9/8/43	295	10,540	36	54	60
Quarrybrae ...	11/9/43	302	10,886	40	52	50
Westercraigs ...	5/3/42	304	8,463	27	45	45
South-East—						
Bedford Street ...	22/6/42	305	8,958	29	46	45
Holmlea Road ...	17/5/44	300	11,740	39	55	50
Pollokshaws ...	1/2/43	304	7,408	24	39	40
South-west—						
Clutha Street ...	20/3/44	303	9,963	33	49	50
Elderpark	20/10/41	306	8,417	27	40	40

Two of the War-time Nurseries have been converted into Short Stay Residence Homes. This is a new development in the Child Welfare Scheme. To these homes are admitted children whose parents usually owing to the illness of the mother, are unable temporarily to care for them. No child is allowed to stay longer in the home than two months, and the average stay is about one month. This provision is proving an extremely useful social measure in the interests of family life, and is being widely taken advantage of by all classes of citizens. A charge is made for the care of the children according to the Corporation scale of necessity.

" Short Stay " Homes	Opening Date	Days Open	Total Admissions	Accommodation for
9 Winton Drive ...	20/5/46	226	170	30
21 Winton Drive ...	17/6/46	196	140	30

Country Homes.—One of the two Country Homes in operation prior to the war—Scotstoun House—reopened again on 3rd June, 1946, as a Convalescent Home for children under 5 years of age. At the outbreak of war the Home was converted into a First Aid Post and later, in February, 1944, to a War-time Nursery. Castlebank House, in use as a War-time Nursery from 24.4.44 to March, 1946, has now been converted`and opened on 29.7.46 as a Country Home.

	Scotstoun House	Castlebank House
Admitted	94	63
Dismissed well	63	31
Removed against doctors' orders	—	3
Removed to hospital	12*	6
Died	1†	—
In residence at end of year ...	18	23

*Ten cases of dysentery, one of measles, and one of whooping cough. There were no cases of infectious disease at Castlebank.

†Cause of death certified as Status Lymphaticus.

HOME HELP SCHEME, 1946.

One of the most gratifying features of the work of the Department has been the success of the Home Help Scheme. It was feared that there might be difficulty in recruiting a substantial number of helps. This fear has not been realised. Throughout the year there has been a steady supply of applicants to become home helps, and during the latter months approximately 312 helps were in employment. About one-third of the number are engaged in the Maternity Scheme and two-thirds in the General Scheme. The maximum period for which a help is granted is 56 days.

Applications for maternity helps increased from 711 in 1945 to 1,753 in 1946. Of these applications, 1,156 cases were completed 341, were cancelled, and 256 were carried forward for completion in 1947. There were 14,873½ working days.

In the General Scheme there were 1,682 applications. Of these, 157 were cancelled, leaving 1,525 cases to be dealt with. There were 33,386½ working days.

The charges for both schemes are the same and are made in accordance with the Corporation's scale of necessity. They vary from 1s. to 10/2 per day. After payment of £3,866 7s. the net cost to the Corporation was £4,244 9s. 5d. for 1,156 maternity cases. For the 1,525 general cases the net cost was £10,122 17s. 3d. after payment of

£8,051 4s. 8d. In the Maternity Scheme 6 per cent. of the applicants paid only 1s. to 1/11 per day and 11 per cent. the full amount of 10/2. In the General Scheme the percentage was 23 and 27 respectively.

The following table shows the illnesses or other conditions under which applications for Domestic Helps were made.

Diseases.	−40 yrs.	40-60 yrs.	+60 yrs.	Totals.
Influenza	61	22	10	93
Cancer	4	8	14	26
Diabetes	2	4	6	12
Intra Cranial Vascular Lesion ...	—	16	90	106
Heart Disease	32	66	105	203
Circulatory	42	47	57	146
Bronchitis	28	25	44	97
Pneumonia	19	20	12	51
Pleurisy	22	7	5	34
Respiratory	25	8	10	43
Digestive	21	24	14	59
Kidney Disease	22	3	11	36
Nervous Diseases	33	27	18	78
Debility following illness	36	17	18	71
Debility following operation ...	93	42	33	168
Accident	16	27	33	76
Rheumatism	22	29	30	81
All other causes	107	14	24	145
Totals	585	406	534	1,525

Maternity Bundles.—Bundles or part bundles to the number of 1,128 were supplied in respect of which part payment received amounted to £24 9s. 4d. In addition, 340 bundles from the American Red Cross were distributed free of charge.

MIDWIVES (SCOTLAND) ACTS.

During 1946 there was an increase of 3 in the number of midwives who notified their intention to practise, so that there are now 153 on the register. This increase is due to an increase in the number of Municipal Midwives and in County Midwives attending Glasgow cases at the boundary. The number of those entitled to registration by examination is 143, while the number of those registered as having been in practice in 1914 is now 7. There are also 3 with other recognised qualifications. The number who notified their intention to practise for the first time was 32.

During the year there were 2,213 occasions on which medical help was called by midwives, which represents 37·0 per cent. of the total births occurring in the practice of midwives. Details of the nature of emergency are not given this year, but the following indicates the period during which medical assistance was called :—

	1943.	1944.	1945.	1946.
In all cases in which a woman during pregnancy, labour, or lying-in appears to be dying or is dead	—	—	—	—
PREGNANCY.—In cases of a pregnant woman where there is any abnormality or complication	46	71	35	36
LABOUR.—In the case of a woman in labour at or near term, where there is any abnormality or complication ...	1,070	1,088	985	1,566
LYING-IN.—In the case of a lying-in woman, when there is any abnormality or complication	169	158	189	326
THE CHILD.—In the child, when there is any abnormality or complication ...	197	206	180	282
Cannot be classified	9	—	—	3
Total	1,491	1,523	1,389	2,213

Fees to doctors attending emergency cases amounted to £1,429 13s. 6d. and during the year £464 10s. 2d. was recovered and £2 9s. withdrawn from medical practitioner's accounts.

CASES OF PUERPERAL FEVER OCCURRING IN THE PRACTICE OF MIDWIVES.

Year	Midiwves	Cases Notified	Year	Midwives	Cases Notified
1939	45	62	1943	29	39
1940	42	61	1944	31	39
1941	31	41	1945	31	38
1942	24	31	1946	28	42

SCHEME FOR THE PAYMENT OF MIDWIVES FEES IN NECESSITOUS CASES.

	Applications				
Year	Received	Refused	Granted	Fees paid to Midwives	Amount recoverable
1938	668	180	488	£540 10 0	£11 10 0
1939	506	196	310	£385 0 0	£10 10 0
1940 (June)	140	54	86	£112 10 0	£12 9 0

On the 21st June, 1940, the services of salaried municipal midwives were made available to necessitous cases at charges made in accordance with a scale of necessitousness approved by the Corporation.

The essential details of this service since its inception are shown as follows :—

Year	Applications			Amount	
	Received	Refused	Granted	Recoverable	Recovered
1940	1,139	163	976	£510 6 0	£373 5 0
1941	1,662	234	1,428	1,721 2 0	1,475 16 6
1942	1,928	203	1,725	2,191 13 0	1,806 19 0
1943	2,705	245	2,460	3,090 0 0	2,856 13 6
1944	2,770	215	2,555	3,130 6 0	2,857 16 6
1945	2,704	237	2,467	3,000 17 0	2,627 3 4
1946	4,454	261	4,193	5,221 9 0	3,281 8 0

Municipal Midwives.—The service carried out by these midwives continues to increase in popularity and the number of midwives is now 45. These nurses paid 13,522 ante-natal visits and 59,259 visits during the puerperium. Visits to babies until the age of one month which maintains continuity of supervision for the first four weeks with considerable influence on the establishment of breast feeding, could not this year be overtaken by the midwives owing to the greatly increased maternity work. This visitation was carried out by the Health Visitors instead and is included in the table, Visitation by Nurses, on page 39.

NURSING HOMES REGISTRATION (SCOTLAND) ACT, 1938.

Seven applications for registration of nursing homes were made during the war. Five of these were granted and the remaining two cases were still under consideration at the end of the year. Four of the applications were for new certificates, consequent upon a change of management, two on account of a change of address, and one was a new application. One of the applications consequent upon a change of management was in respect of a nursing home which had previously been exempted from registration.

Ten certificates were withdrawn. Three of these were on account of a change of management, one on account of a change of address, and in the other six cases the homes were discontinued.

No fresh applications for exemption were received. One home which had previously been exempted and which was evacuated during the war period resumed functioning during the year, and exemption was renewed. Exemption of one home was cancelled. This was in respect of the home above referred to, which in consequence of a change of management, was registered during the year.

The following table shows the position of nursing homes at 31st December, 1946 :—

	Registered.	Exempted.
Maternity Hospitals	—	1
General Infirmaries and Hospitals	1	10
Nursing Homes	37	4
Total	38	15

OPHTHALMIA NEONATORUM.

During 1946, 340 cases of ophthalmia neonatorum were notified as compared with 327 in 1945.

As many of the cases notified are not true ophthalmia, an analysis was made with the following result :—

Ophthalmia Neonatorum	119
Purulent Conjunctivitis	114
Simple Conjunctivitis	80
Dacryocystitis	1
Stye	2
N.A.D.	24
	340

All notified cases classified according to nature of attendance at birth :—

Doctors	14
Institutions	74
Institution Nurses	112
Midwives	140
	340

All notified cases classified according to age at onset :—

—12 hours	27
— 4 days	75
— 8 days	97
+ 8 days	117
N.A.D.	24
	340

Smears were taken in all cases and eight were found to be positive for gonococcus, compared with 16 in 1945, and 21 in 1944.

Forty-one cases were admitted to Baird Street Hospital for treatment and 35 attended as outdoor cases, and made 185 attendances. The remaining cases were treated by health visitors who made 2,415 visits.

In addition, nine cases were admitted to Baird Street from other Authorities, only one of which was positive for gonococcus.

Treatment in hospital was along similar lines to last year, that is, by the administration of sulphathiazole by mouth, and in the more refractory cases, the application of penicillin locally. The results were highly satisfactory and in no case was there any impairment of vision.

The Wassermann test for syphilis was carried out in all the hospital cases and in only one instance was this positive.

PUERPERAL FEVER AND PUERPERAL PYREXIA

During the year there were registered 305 cases of puerperal fever and 192 cases of puerperal pyrexia compared with 288 and 204 respectively for the preceding year. All but two of the cases of puerperal fever and 18 pyrexias were removed to hospital or other institution.

Deaths associated with cases of puerperal fever notified during the year numbered 23, including 5 outward transfers, i.e., with addresses beyond the city. This is equal to a fatality rate of 7·5 compared with 10·0 for the preceding year.

Among the cases registered as puerperal pyrexia there were 20 deaths which under the International Classification of Deaths would be tabulated as follows: pulmonary tuberculosis, 11; other tuberculous disease, 1; heart disease, 1; pneumonia, 1; other respiratory disease, 1; other maternal causes, 5. The combined mortality rate on the 28 deaths from puerperal conditions is, therefore, 5·6 per cent. compared with 5·8 per cent. for 1945.

SECTION IV.

INFECTIOUS DISEASES.

The total number of cases of infectious disease registered for the year 1946 was 35,290, with an additional 2,596 other cases which were ultimately diagnosed as non-infectious. For the preceding year the corresponding figures were 31,298 and 2,260. The figures for 1946 are about the average for previous years, when the cases registered were fewer than usual. The increase is accounted for largely by the greater number of cases of acute primary and influenzal pneumonia and the higher prevalence of measles. Details of notifiable and non-notifiable cases showing those treated in hospitals and other institutions, etc., are given in Appendix Table XV, while the seasonal prevalence is shown in Appendix Table XVI.

Smallpox and Vaccination.

During the year one case was removed to hospital from a ship on arrival from India via mid-eastern ports as suffering from smallpox, but the diagnosis was not confirmed. Particulars of this case and the circumstances under which it was removed are given in Section V of this Report dealing with the Port Health Authority.

Service personnel and civilians returning from the east and other places where smallpox is prevalent and arriving in Glasgow or via other ports were intimated frequently throughout the year, and these were kept under observation in accordance with the Regulations. Similar precautions were taken in respect of persons arriving by air from abroad.

Vaccination.—The following table gives some details of the administration of the Vaccination Acts up to the end of 1945, from information supplied by the Registrar-General for Scotland. Since the outbreak of smallpox in 1942 the percentage of infants successfully vaccinated has remained more or less constant between 56 and 57 per cent. In 1946 the percentage was 56·5. With the reduction in infant mortality the percentage of children dying before vaccination was only 6·1 against 8·2, while the percentage not vaccinated because of conscientious objection on the part of the parents or guardians was slightly lower, 21·6 against 22·6 during the previous year.

TABLE SHOWING RESULTS OF PRIMARY VACCINATION OF CHILDREN BORN DURING SEVERAL YEARS.

(*From the Detailed Annual Reports of the Registrar-General.*)

Year.	Successfully vaccinated. Per cent.	Insusceptible of vaccine disease. Per cent.	Died before vaccination. Per cent.	Conscientious objection to vaccination. Per cent.	Vaccination postponed. Per cent.	Unaccounted for. Per cent
1906	82·9	0·5	10·6	0·2	0·8	5·0
*	*	*	*	*	*	*
1914	51·7	0·9	12·1	25·1	1·8	8·4
*	*	*	*	*	*	*
1939	39·6	2·3	7·4	41·6	1·6	7·5
1940	43·2	1·8	8·0	36·5	1·6	8·9
1941	50·2	1·9	9·5	30·5	0·4	7·5
1942	60·8	3·3	7·6	18·7	1·7	7·9
1943	56·7	3·5	7·4	22·1	0·4	9·9
1944	56·0	2·8	8·2	22·6	1·2	9·2
1945	56·5	3·6	6·1	21·6	0·5	11·7

During 1946 the number of cases reported by Registrars as not having lodged certificates for conscientious objection to vaccination under the Act was 5,903, against 6,441 for the preceding year. Children vaccinated numbered 1,674, the number postponed was 2,208, and 76 were certified as not susceptible. Medical certificates on behalf of 946 children were forwarded to the Department of Health for registration as not fit subjects for vaccination.

The number of children vaccinated at Child Welfare Centres was 3,791, compared with 3,417 during the previous year.

TYPHUS FEVER.

No case of this disease occurred in the city during the year. There has been none since 1931 ; and only 3 cases have been recorded in the past 20 years.

TYPHOID FEVER, ETC.

Typhoid.—The number of cases increased to 29, as against 11 last year. Only 3 were institutional. The rise was due to a localised outbreak during the summer. This outbreak, which shows alike the potential menace of residual typhoid and the difficulty of tracing the source of infections in a city, is described as follows by Dr. Thomas M'Gowan, Divisional Medical Officer :—

Typhoid fever made a sudden appearance in a small area in the East end during July, 1946, and caused anxiety lest it should assume epidemic proportions. At that time no other cases were known to exist elsewhere in the city, and despite much effort no source of infection was found. In all, 20 cases were notified or discovered ; but of this number eight cases occurred in each of two households, two cases in a third family, and one case in each of two families. Thus there were five infected households, each separated from the others by distances varying from 100 yards to 1½ miles by road. Included in one of the large familial groups was one person not a member of the family but a frequent visitor to it. Each large familial outbreak was due to a missed case which had sickened some two weeks prior to the sickening of the first secondary case ; and no one was surprised when secondary cases occurred, because of the low hygienic standards. Only one member of these two families escaped infection, an ex-army man who had no overseas service but had repeated anti-typhoid inoculations. The sickening dates of all patients ranged from mid-June to early August. A sharp illness was noted in several cases, although others were only mildly indisposed ; one fatality occurred in a man of 62 years on the twenty-fourth day of illness.

In an attempt to trace the source of infection, an intensive survey was made of all rationed foods. Enquiry was made into the health of all employees of the shops and of the wholesalers concerned without resulting in the detection of any suspicious illnesses. Ice-cream was in great demand in Glasgow during May, but June was a cold wet month, not conducive to its consumption. Most of those affected had partaken of ice-cream, but not obtained at any shop common to any two groups. In June there appeared to be an unusually plentiful supply of cockles which were on sale in shops and from barrows. As one of the missed cases ate about 2 lbs. of uncooked whelks ten days before sickening, it was decided to investigate the condition of sale of such shellfish, special attention being paid to the gathering, washing, cooking, and storing arrangements. No typhoid bacilli were isolated from several samples of cooked and uncooked cockles, and all cooked samples gave satisfactory bacterial returns.

Paratyphoid.—There were only 15 cases, of whom none originated in institutions. Seven of the cases sickened during the month of August. An unusual feature was the minority of female cases—6 in all. Although so few, the year's cases were spread over the Northern, South-Western and Central Divisions.

Dysentery.—There were 572 registered cases. Seasonal distridution was as follows :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
Home Infections ...	113	107	83	99	402
Institutional	61	43	37	29	170

The home cases show a marked fall from the previous year's unprecedented incidence, being reduced by over two-thirds. Institutional cases were derived from twenty different institutions of which nine were institutions for children. Over half of the institutional cases came from four Welfare Department institutions for healthy homeless children. One of these institutions had a Sonne outbreak, one had a Flexner outbreak, one had outbreaks of Flexner and Sonne and one had a Newcastle outbreak with one Sonne case. There were also a few cases from three Public Health Department residential nurseries, Flexner cases in one instance and Sonne cases in the other two instances. The age distribution of the registered cases was as follows :—

	–1	–5	–15	–55	55+	Total.
Home Infections ...	30	197	52	102	21	402
Institutional	18	107	11	28	6	170

The age distribution of the home cases shows that children under 5 years again formed a majority of the foci of infection in the city.

In addition, there was a brief but extensive outbreak in a Corporation hospital in which 296 persons were infected. The occurrence of this outbreak is perhaps attributable to an exceptional and unfortunate coincidence. It is uncommon for an adult to be a dysentery carrier without being either a known contact of previous dysentery cases or aware of having suffered from intestinal symptoms. Presumably such a person was found at the centre of the hospital's milk distribution system. Dr. J. S. M'Millan, Divisional Medical Officer, gives the following summary of the epidemic :—

An explosive outbreak of Sonne dysentery suspected of having been due to a milk-borne infection occurred in May in a Corporation hospital, doctors, nurses, maids and patients being alike affected. Of 943 persons at risk, 285 or 30·2 per cent. were affected, of whom 134 or 47 per cent. were affected within the first 48 hours. The time-incidence of sickening of cases was as follows :—

Day of Outbreak ...	1	2	3	4	5	6	7	8	9	11	12
No of Cases	1	42	91	36	36	30	23	13	11	1	1

Total=285 cases.

In addition to the clinical cases, Sonne bacilli were isolated from the stools of 11 members of the staff who gave no history of illness. The early cases were sharply ill, though in most cases not dangerously so, while the later cases who presumably had less massive infection were of a much milder character. Three deaths occurred, one a member of the nursing staff, and two patients. In all three the previous state of health was responsible for the fatal issue. Treatment included the administration of succinylsulphathiazole and phthalylsulphathiazole, these drugs also being given prophylactically. It has not been possible to compare the value of these two drugs as supply problems required the changing from one drug to the other during treatment, but the over-all results were excellent. Phthalysulphathiazole proved the easier to take because of the smaller quantity required. In the vast majority of cases infection quickly cleared up and it was possible to reopen the hospital for admissions on 4.6.47. No subsequent cases of dysentery occurred. The first case had sickened at 11 p.m. on 13.5.57.

The explosive character of the outbreak immediately cast suspicion on milk as a possible vehicle of infection. Also there were certain members of the staff living outwith the hospital to whom milk, it was claimed, was the only common article of diet. The history of these persons suggested that the milk was first infective on 13.5.47 and that the incubation period was less than 24 hours in many cases, in one case apparently 9½ hours. The milk supply to the hospital was from the tuberculin-tested herds of two farms. Examination at these farms proved completely negative and other institutions supplied from the farms were unaffected. The outbreak, therefore, may have originated in the milk room of the hospital. An employee who showed no signs nor gave any history of dysentery and who was engaged in the cleansing of the milk utensils and milk room of the hospital was found to be acting as a carrier.

SCARLET FEVER.

The number of cases of scarlet fever registered has remained at a more or less uniform level during the past three years. In 1946 3,431 were registered compared with 3,417 in the previous year. As a rate per million of the population, the cases in 1946 give a figure of 3,192 compared with 3,588 in 1938, and a maximum of 8,361 in 1932, which was the highest recorded in the city. This exceptionally high rate was largely accounted for by the age distribution of the child population at that time (see chart in Section I of this Report) coupled with a rising incidence of the disease.

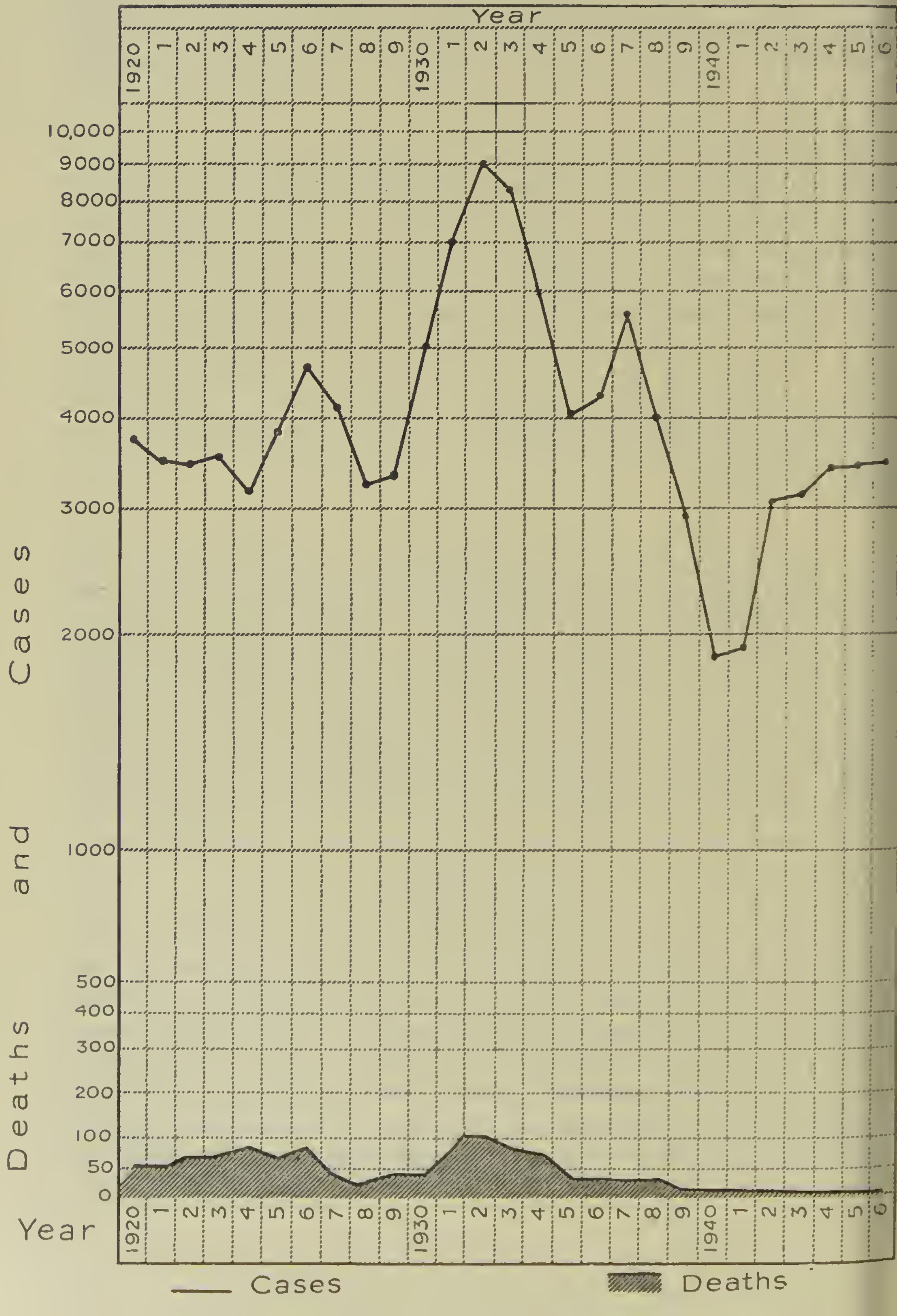
At that time there was a large proportion of children at ages around 10 years and the age distribution of the cases shows that by far the heaviest incidence of the disease takes place between 5 and 10 years of age. In 1946 1,527, or nearly half the total number, occurred at ages between 5 and 10 years, while the cases occurring under 5 and between 10 and 15 accounted for the other 50 per cent. in about equal proportion.

The seasonal distribution of the disease is given in Appendix Table XVI, which shows that nearly 50 per cent. of the cases were registered in the last quarter of the year, the highest monthly total being 609 in December, while the lowest number was 146 in July, which is the school holiday period. At that season, however, the disease invariably shows a definite trend towards reduction as the summer advances. With regard to the incidence of the disease, this was again heaviest in the wards with a large proportion of children, such as Provan where there were 181 cases ; Gorbals, 157 ; and Shettleston and Tollcross, 140, compared with 22 in Kelvinside, 37 in Camphill and 52 in Calton.

The most favourable point about scarlet fever is the reduction which has taken place in the mortality in recent years, for there was only 1 death among the 3,431 cases registered. The general trend of mortality from scarlet fever has been downward. Since the earliest available records in 1891 until recent years the number of deaths has varied with the prevalence of the disease. The highest mortality was 301 deaths in 1892, when 4,844 cases were registered, a case mortality of 6·2. Mortality was again heavy at the beginning of the First World War for 281 deaths were recorded in 1915, although by that time the population had been increased by 30 per cent. by the extension of the city boundaries. The only other year in which the mortality exceeded 100 was 1932 when 102 deaths occurred during an excessive prevalence of the disease which is illustrated in the chart shown overleaf. Since that year the mortality has rapidly declined until 1946, despite the considerable rise in the number of cases since 1940-41, when many children were evacuated because of bombing by the enemy. This considerable reduction in the mortality from scarlet fever is occurring in other towns, both here and in America and cannot be accounted for by a lesser prevalence of infection. It probably is, however, associated with the better nourishment and physique of the children on the one hand and the reduced virulence of the organism on the other.

GLASGOW—INCIDENCE OF SCARLET FEVER, 1920-1946.

CASES AND DEATHS IN ARITHLOG SCALE



It is seldom nowadays that an outbreak of any dimensions occurs, although small pockets of related infection must take place quite frequently because of the nature of the disease.

A small outbreak occurred in the south-western district of the city involving the scholars attending a Higher Grade School. The first case, a boy, sickened on 17th November. No further cases occurred until 6th December, when another boy sickened with the disease. Following these, 7 other boys developed scarlet fever, all sickening between 8th and 17th December, the last of this lot, a mild case, being discovered when all the pupils in the class were medically examined on 19th December.

The remaining children who were absent from school, some of them with mild illness, etc., were visited at home. Among them 9 were found to have suffered from tonsillitis.

DIPHTHERIA.

For the sixth successive year the prevalence of diphtheria has shown a recession. The number of cases registered in 1946 was 1,458 compared with 1,970 for the preceding year. This figure is less than a quarter of the number recorded in 1941. Most of the cases occurred during the school ages 5-15 years, the proportion of the total being almost 50 per cent., two-thirds of the cases being in the lower age period 5-10 years. The number of cases under school age formed 30 per cent. of the total cases. The age incidence of attack was, therefore, almost in inverse proportion to the percentages immunised, namely 60 per cent. under 5 and 30 per cent. between 5 and 15 years. The heaviest incidence of the disease was 106 in Govan ward followed by Provan with 100 cases.

Both are wards with birth rates in excess of the average for the city and in that respect accumulate children of susceptible ages, although wards contiguous to these have somewhat similar birth rates with a considerably lower incidence of the disease.

Of the total cases, all but 6 were treated in hospital. Female cases exceeded the males by 30 per cent., the excess occurring at all age periods except under 5 years.

The season of highest incidence is usually the early winter months from about the middle of November to mid-December, but in 1946 the greatest number registered was 159 in January, while in December there were only 104, which would seem to indicate that the reduction in the incidence of the disease is still continuing with the increasing numbers of children that are being immunised. The seasonal prevalence is given in Table XVI.

Mortality from diphtheria was slightly higher, 37 deaths compared with 33 for the preceding year, which however, was the lowest hitherto recorded. The higher number of deaths during 1946 may be explained by the greater mortality which occurred during the influenzal pneumonia outbreak in the early weeks of the year, for 12 deaths occurred in the first six weeks compared with only 2 in the same period of 1945. Most of the mortality occurs at the young ages, and 13 of the 19 male deaths and 12 of the 18 female deaths were among children under 5 years of age, while the respective figures for children of school age were 5 and 3.

Diphtheria Immunisation.—The facilities for diphtheria immunisation which are available are as follows :—

(1) Thirteen diphtheria immunisation clinics held each Tuesday afternoon in different areas of the city. These deal with children of all ages.

(2) Immunisation is carried out at all Child Welfare Centres.

(3) School entrants are offered facilities at their first medical examination.

(4) Children in day nurseries and nursery schools are immunised on admission.

Birthday letters are sent to the parents of children of one year who have not been immunised. These cases are picked up by the Health Visitors in the course of their visitation. A similar letter is sent to the parents of toddlers known to the Health Visitor to be still unprotected.

The number of letters issued has a direct bearing on the number of children under 5 years of age who are brought for immunisation as is seen by the following table :—

	Letters Sent.			Number immunised under 5 years of age.
	Infants.	Toddlers.	Total.	
1944	6,300	4,012	10,312	8,558
1945	6,788	7,054	13,842	11,098
1946	5,686	5,814	11,500	8,745

A special campaign was carried out in April and May. Sixty schools were selected which had the largest number of unimmunised children. Arrangements were made for medical officers to visit the schools on specified dates. Propaganda was carried out in the press, cinemas and by special posters on trams and buses. An appeal was issued to the parents of each child in the form of a pamphlet from the Director of Education and the Medical Officer of Health, pointing out the desirability of having their children protected and the urgent need of accepting this special opportunity. Children under school age were allowed to attend these special sessions. As a result of the campaign about 2,700 children were immunised and 270 were given a reinforcing dose.

In spite of all the efforts made in various directions there remains much apathy which is difficult to overcome. Although 60 per cent. of the school children have been immunised only about 25 per cent. of the pre-school children have been protected.

No. of Children Immunised in 1946.			No. of Reinforcing Doses.		
−5 years.	+5 years.	Total.	−5 years.	+5 years.	Total.
8,745	3,734	12,479	61	1,723	1,784

Of the 37 deaths from diphtheria which occurred in the city last year, 25 were children under 5 years of age. Four deaths occurred among children who had been immunised. These were as follows :—

Sex.	Age.	Immunisation Completed.	Admitted to Hospital.	Days Ill before Admission.	Days in Hospital.	Strain.
Male	12	10/1/41	30/1/46	4	3	Gravis
Male	8	30/12/40	18/6/46	2	49	Gravis
Female	11	21/1/41	6/12/46	2	1	Atypical
*Female	4	19/10/43	25/12/46	6	Few hrs.	Negative

* Laryngeal diphtheria.

Erysipelas.—There were fewer cases of erysipelas during the year, 481 compared with 525 in 1945, with a continued excess of females, a point which was dealt with in more detail in the report for last year. In 1946 the male cases numbered 179 and the females, 302. The mortality was heavier for there were 13 deaths during the year against 8 for the previous year, 9 of the deaths, as shown in Appendix Table IX, occurring among females at ages over 65 years.

DISEASES OF THE CENTRAL NERVOUS SYSTEM.

Cerebro-Spinal Fever.—There was a definite increase in the incidence of this disease during the year. The number of cases registered, 227, is 97 more than the corresponding figure for 1945. This is the highest number recorded since 1941, when there was a heavy prevalence during the three early years of the war, 1940-42. Outbreaks of cerebro-spinal fever are frequently associated with a prevalence of influenzal pneumonia and this may have been the case during 1946 for, as is described later in this section with regard to respiratory infections, these diseases were widespread in the city in the early months of the year. The following summary illustrates the possible association of the two infections :—

	Cases Registered—			
	C.S.F.		Influenza.	
	1946.	1945.	1946.	1945.
1st Quarter	93	53	169	26
2nd Quarter	69	29	20	9
3rd Quarter	32	21	8	21
4th Quarter	33	27	22	22
Total	227	130	219	78

These quarterly numbers of cases of influenzal pneumonia can only be taken as an indication of the much more widespread incidence of the infection, because all the cases occurring amongst the more robust members of the population would not be brought to notice; only the more severe illnesses or cases requiring treatment in hospital would be notified.

The incidence of cerebro-spinal fever in relation to age and sex since 1938 is again collated here in the following table :—

	CASES.										Mortality per cent.		Death Rates per Million.
	−5		−15		−45		45+		Total.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1938	22	28	8	5	15	7	1	2	46	42	41·3	45·2	34
1939	23	18	9	12	12	6	1	—	45	36	28·8	16·6	17
1940	125	102	27	36	89	58	14	6	255	202	21·5	18·8	89
1941	100	88	27	28	74	56	19	16	220	188	20·0	21·2	80
1942	46	37	25	18	30	24	9	9	110	88	23·6	27·2	48
1943	42	32	14	5	17	6	3	4	76	47	14.4	27·6	23
1944	38	33	11	9	12	15	5	6	66	63	25·7	17·4	27
1945	52	29	12	6	16	8	2	5	82	48	26·8	18·7	29
1946	74	63	18	17	21	23	6	5	119	108	12·6	10·2	24

The greatest increase has occurred among females, especially at ages 15 to 45 years, 23 cases against 8 in 1945. The larger number of births explains, partly at least, the higher number of cases, for one-third of the total among pre-school children occurred in the first year of life, and almost one-third in the second year. The highest incidence of the disease occurred in an area south of the river from Gorbals to Govan, in two wards to the east of the city and one in the north-west, but no associated outbreaks were recorded.

Mortality from the disease was, however, more favourable, for there were fewer deaths, 26 against 31 in the previous year.

Acute Encephalitis Lethargica.—In 1946 six cases were notifed as suffering from this disease against 4 for the preceding year. There have been only sporadic cases of the disease since a small outbreak occurred in 1937. Five of the cases were males and 1 female. The deaths classified as due to acute infectious encephalitis numbered 15 compared with 22 during 1945.

There were 2 cases of acute polioencephalitis, a boy under 10 and a woman between 35 and 45 years of age.

Acute Poliomyelitis.—There were 2 cases of acute poliomyelitis, a boy under 5 years of age and a girl between 10 and 15 years.

MEASLES.

In large cities measles is a disease of childhood, correlated with the number of children between 5 and 10 years, the age at which most cases occur. With the reduction in the birth rate during the past 20 years the number of children of susceptible ages has, therefore, been reduced, so that when, for example, a prevalence with cases numbering upwards of 10,000 in a year was recorded as a medium outbreak, numbers of that magnitude now come into the category of a major outbreak.

In 1946 the number recorded was 9,696, which in the circumstances might be regarded as a somewhat heavy prevalence, more especially as the great bulk of the cases occurred in the three spring months of the year, as shown in Appendix Table XVI. The greatest monthly number was 2,569 in May. When an epidemic starts in the city in the winter, fluctuations are much greater and occur biennially, whereas with medium prevalences occurring in consecutive Springs, the variations in the numbers are much reduced. This is illustrated in the chart on the following page which gives the incidence of the disease in Glasgow since 1921. The rates have been calculated on the susceptible child population up to 15 years of age, which give more accurate rates than the figures usually quoted on the total population, because of the variations in the birth rate during and following the First World War.

In the following summary is shown the variations in the incidence of the disease during 1946 compared with the previous 10 years. The annual average during the last 5 years of spring-summer epidemics is about 8,000 cases, while the first 5 years of winter-spring prevalences averaged about 10,000 cases. The reduction in the fatality rate is more definite ; in the last 5 years it was 4 per 1,000 cases, whereas in the first quinquennium 1936-40 the fatality rate was 9.

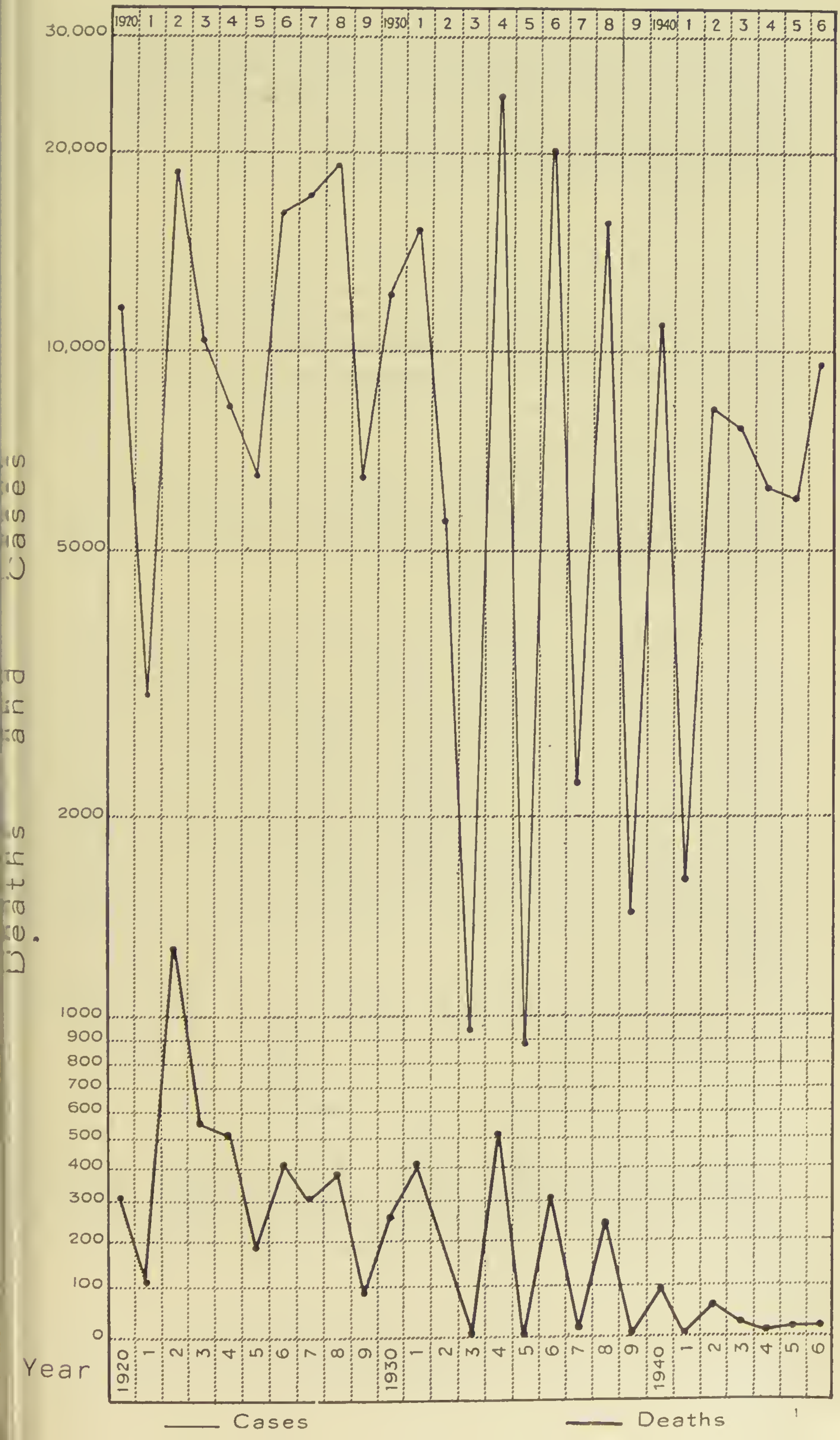
	Cases.	Deaths.	Mortality per cent.
1936	20,196	311	1·5
1937	2,272	29	1·3
1938	15,839	257	1·6
1939	1,462	2	0·1
1940	11,028	97	0·9
1941	1,613	11	0·7
1942	8,303	65	0·8
1943	7,843	31	0·4
1944	6,364	16	0·3
1945	6,012	24	0·4
1946	9,696	24	0·2

Considerable as has been the reduction in the mortality, the improvement is much greater over a longer period. During the 5 years after the First World War, 1920-24, there were 2,744 deaths from measles, or an average of 557 per annum, while in 1922 alone, the highest year, no less than 1,287 deaths occurred. In 1939, just prior to the recent war, there were only 2 deaths, whereas in the preceding year the deaths numbered 257. This was a period when a heavy prevalence occurred during the winter and when the outbreak with 15,839 cases was widespread throughout the city with consequent high mortality because of the respiratory complications, compared with the following year when only odd sporadic cases of measles occurred to the number of 1,462.

The number of cases removed to hospital for treatment during 1946 was 928, while 6 more were dealt with in other institutions. A comparison with the previous year is given in Appendix Table XV, while the seasonal incidence appears in Table XVI.

GLASGOW—INCIDENCE OF MEASLES, 1920-1946.

CASES AND DEATHS ON ARITHLOG SCALE.



Rubella.—This disease was also prevalent during the period of the measles outbreak in spring, and there were relatively more cases during the late months of the year when the measles prevalence had cleared up. With the higher incidence of the disease more cases were removed to hospital, 111 against 66 in 1945.

WHOOPING COUGH.

The incidence of whooping cough was little changed compared with the previous year, although it was considerably less than that of 1944. The number of cases registered in 1946 was 2,726 compared with 2,775 in 1945. The susceptible ages are somewhat similar to those of measles, i.e., mainly around the pre-school and early school years with an average of about 7 years. As is the case with measles, whooping cough is not compulsorily notifiable, but from intimations received from Attendance Officers of the Education Department and requests for removal to hospital by general practitioners, etc., it is probable that up to 80 per cent. of all the cases occurring are brought to the notice of the Department.

The prevalence of whooping cough was mostly in the second half of the year as distinct from the outbreak of measles which occurred in the first half. The seasonal prevalence given in Appendix Table XVI shows that the highest monthly number recorded was 605 in December. The disease was prevalent throughout the city, more especially in the east end, the highest number recorded being 217 in Shettleston and Tollcross. Prevalences of whooping cough and measles are quite independent of each other ; sometimes they may coincide, for the experience of whooping cough shows that it more often extends into a periodicity of 3 years between major outbreaks. The volume of cases is on the average not more than half that of measles, but the number of deaths occurring annually is greater. The mortality per cent. is usually three times that of measles ; in 1946 the percentage of deaths to cases was 0·73 against 0·24 for measles. The deaths for the year numbered 20 only compared with 35 for the preceding year.

OTHER INFECTIOUS DISEASES.

Chickenpox.—Although it is seldom that a death is certified as due to chickenpox, the number of cases occurring annually is considerable. In 1946, 4,880 cases were registered compared with 5,272 in

1945. As usual the highest prevalence occurred in the spring months around March, a period of the year when there is a danger of smallpox being imported, usually from far-east and middle-east countries. The disease was very prevalent in the north-east of the city, especially in Provan ward where 361 cases were registered and in the south-west where the ward most heavily affected was Fairfield with 382 cases.

Diarrhoea and Enteritis.—These diseases are not notifiable but where enteritic disease occurs to any extent or as an outbreak and is brought to notice, special enquiry is made because of the mortality which may result, especially among infants and young children. One of these outbreaks which occurred in a large hospital has already been described in the early part of this section.

The deaths from diarrhoea among children under 2 years of age numbered 295 compared with 385 during the previous year and 701 in 1944. Of the total mortality 172 were males and 123 females, all of whom were under 1 year of age with the exception of 6 of each sex. In former years the incidence of the disease was largely related to the high temperatures during the late summer and early autumn, and this was definitely the case 2 years ago when there was a very heavy mortality from these diseases. In 1946, which had a cool, dull summer, the average temperature during July, August and September was 2 degrees less than the respective averages of the previous year, while the October temperature was only 46·3 compared with 50·7 in 1945. The deaths were therefore, considerably fewer, especially in September and October, when the respective numbers in 1946 were 22 and 19, compared with 60 and 58 for these months during 1945. The following table shows the number of deaths under 1 year in each month of the year against the mean temperature, compared with the corresponding figures for the previous year :—

NUMBER OF DEATHS UNDER 1 YEAR ACCORDING TO MONTH OF DEATH.

	1946		1945			1946		1945	
	Death	Temp.	Deaths	Temp.		Deaths	Temp.	Deaths	Temp.
January	17	35·9	25	31·1	July ...	28	58·6	12	60·6
February	29	40·4	22	41·9	August ...	26	56·5	29	59·6
March	23	41·0	24	46·0	Sept. ...	22	54·7	60	56·4
April	28	48·0	24	47·3	October ...	19	46·3	58	50·7
May	23	51·8	28	50·8	Nov. ...	25	43·0	42	43·9
June	26	54·5	16	56·0	December	37	36·3	23	39·3

Anthrax.—In the course of his duties as lime-jobber a twenty-nine year old leather worker injured the back of his hand with a hook. A malignant pustule developed and on his removal to hospital on 3rd May he was diagnosed as a case of anthrax.

His duties involved dealing with hides which had been immersed in lime pits. The hides came from Argentine, South America, etc., and the only preparation they received prior to trans-shipment was the addition of powdered lime. As it was impossible to determine which hide was probably infective all those likely to have been handled by the patient were sprayed with ten per cent. sodium hypochlorite. Disinfection of the patient's house and his clothing was carried out and no other case was reported. Working conditions were satisfactory with ample facilities for first aid treatment, and this firm had had very few cases over a long period of years.

Infective Jaundice.—A 29 year old bricklayer, living in Hamilton and working in a housing scheme there, was admitted to Glasgow Royal Infirmary on 21st June with severe jaundice. There were no early symptoms of Weil's Disease, but laboratory examination gave a positive result for leptospira ictero haemorrhagiae.

On 5th September a 17 year old assistant fish salesman in Glasgow Fish Market became ill with pain in his back and severe headache. He was removed to the Victoria Infirmary on 8th September and jaundice appeared on the 10th. Evidence of rat infestation at his home was slight. The patient went to the local public swimming baths several times a week and frequently took his meals out at restaurants near the market. In the course of his work he had frequently suffered from abrasions, cuts and other skin injuries.

Scabies.—The steady decline in the incidence of scabies which began in 1942 has continued throughout 1946. It should be noted that the Scabies Order (Scotland) 1941, is still operative, but its application has not been found necessary in Glasgow as families are readily persuaded by the Health Visitors supervising scabies to attend the scabies centres for treatment. The total number of families brought to the notice of the Medical Officer of Health during 1946 was 2,862 compared with 5,888 during the preceding year, and the total number of new cases treated was 7,487 compared with 12,093. The disease was somewhat more prevalent during the first quarter of the year than later. The distribution of the cases was as follows :—

Division.	Families.	New Cases.
South-Eastern ...	659	1,318
Central	702	1,367
Northern	1,061	2,163
South-Western ...	481	964
Eastern	859	1,675
	2,862	7,487

At the beginning of 1946 eighteen Health Visitors were occupied with the treatment and follow-up of scabies cases, and in addition they visited the homes of pneumonia cases during busy periods. The number of nurses employed on scabies duties since the end of June, 1946, is five, and they still undertake other duties. The number of clinics for the treatment of adult cases of scabies was four, but at the end of June the centres at Cranstonhill and Whitevale Baths were closed. It should be noted here that the Baths Department contributed very largely to the successful issue of the anti-scabies campaign by allowing parts of their premises to be used as scabies centres. There are now two clinics for the treatment of adults and children of pre-school age, one at Baird Street Auxiliary Hospital and the other at Moffat Street Reception House. There are, in addition, however, five school clinics with bathing facilities for the treatment of school children.

It can now be reported that scabies is generally mild, although some severe acute cases occur. " Problem " families with chronic neglected cases are very rare. The arrangements in Glasgow where scabies is virtually a notifiable disease are notably successful and should continue.

TRACHOMA.

The number of cases of trachoma notified during the year was 14 compared with 8 during the preceding year. All were verified with the exception of 1 which failed to attend the clinic. During the year 15 cases were removed from the register, 11 gone, no address ; and left the city, 4. Of 5 home contacts who showed slight signs of eye trouble 3 were diagnosed as cases of trachoma. The number now on the register of this more or less chronic disease is 144 and there are still 6 other doubtful cases, making a total of 150.

The clinic at which an eye specialist attends is held on Wednesdays, while on 4 other occasions during the week a nurse carries out the treatment prescribed. During 1946 patients who attended numbered 134, while subsequent attendances numbered 2,443, of which 639 were consultations with the ophthalmic surgeon and 1,804 for treatment by the nurse. Of the 134 patients attending the clinic, 7 resided beyond the boundary, 3 of them Polish soldiers.

With regard to hospital treatment, it was found necessary to remove 16 cases to Stobhill Hospital, 12 of these being admitted for the first time. Sulphonamide drugs with expression of the follicles is still giving the best results in acute cases.

Rabies.—No case of rabies is known to have occurred, but a number of persons bitten by dogs were reported by the police for inquiry. These are shown in relation to the season of occurrence and the severity of the bite :—

		Slight.	Serious.
1st Quarter	...	56	—
2nd Quarter	...	102	1
3rd Quarter	...	127	—
4th Quarter	...	51	—
		336	1

337

1945 ... 291 ; 1944 ... 287 ; 1943 ... 314

In addition there were two complaints of rat bites, one of scratches by a cat, and one individual was badly bitten by a monkey.

RESPIRATORY DISEASES.

Pneumonia and Influenza.—The chart of death rates from respiratory diseases which was published in the report for last year showed the very great reduction that has taken place in the mortality from the various diseases within this group. Apart from three exceptional outbreaks of influenzal pneumonia in 1918, 1922 and 1930, pneumonia has shown considerable variations from year to year, and although the decline in its fatality has oscillated considerably, reduction in the death rate has been very definite since 1930.

Outbreaks of influenza are generally of the explosive type, occurring as they do in the early months of the year. In 1946 there was a mild outbreak of influenza which was widespread throughout the City during January and February. During this period the incidence of acute pneumonia also increased, although the numbers of cases notified are probably only an indication of the large increase in the total amount of illness occurring among the whole population suffering from coughs and colds, which are usually widespread concurrently with the prevalence.

From early in January absenteeism in the schools was heavy; many staffs in works and offices were depleted; while services where employees and others require to work in the open, exposed to the rigours of the weather, were considerably reduced over a period of 3 to 4 weeks. Of the total cases registered 6,151 were notified as acute primary pneumonia, while 219 others were of the influenzal type. Of this total 3,747 occurred in the first three months of the year, a period when mortality from these diseases is at a maximum.

The death rates from each of the diseases within the respiratory group are given in the following table compared with the corresponding rates for the previous 5 years :—

	1946.	1945.	1944.	1943.	1942.	1941.
Influenza ...	149	44	75	196	53	119
Bronchitis ...	320	324	312	306	339	458
Pneumonia ...	661	529	696	840	731	961
Others ...	142	91	118	143	133	134
	1,272	988	1,201	1,485	1,256	1,672

The reduction in the mortality from respiratory diseases, especially pneumonic conditions, has been so marked that it is interesting to learn where this reduction has taken place. Enquiry has therefore been made as to the sex and age distribution of cases and deaths during the three years 1930/32 as compared with 1944/46, over which period most of the decline has occurred, as shown in the diagram which was published in the Report for last year.

The following table gives the case-rates and death-rates per 100,000 of population for the respective age periods.

	Case-rates.				Death-rates.			
	1930-32.		1944-46.		1930-32.		1944-46.	
Age.	M.	F.	M.	F.	M.	F.	M.	F.
–1	6,290	5,130	5,284	4,048	3,112	2,289	1,401	936
–2	5,495	4,682	2,923	2,414	1,466	1,062	145	122
–5	2,103	1,944	1,574	1,359	195	154	32	22
–15	642	447	474	365	26	21	3	3
–25	404	165	285	248	40	15	4	5
–35	273	166	220	244	68	33	8	8
–45	381	170	383	231	126	52	31	13
–55	326	159	537	242	145	58	71	29
–65	327	233	562	329	287	180	114	57
65+	465	369	889	597	427	366	361	235

The definition of notifiable disease is " Acute Primary Pneumonia " or " Acute Influenzal Pneumonia." Because of the inclusion of pneumonia not falling strictly into the classification but reported for treatment in hospital the death rates probably indicate the trend of the improvement that has taken place.

The toll which pneumonia takes of young infants is greatest in the early years of life, especially in the first year. Over the past 15 years there has been a considerable reduction in the rate of mortality among infants. For instance the death rate among males in 1930/32 was 3,112 per 100,000 males at that age ; the rate has come down to 1,401 during 1944/46, while the corresponding figures for females were 2,289 and 936. The drop in mortality in the second year has been even greater relatively, for the rate in 1944/46 for males was only 145 against 1,466 during the first period and for females 122 against 1,062.

It has been the practice of the Department in the treatment of pneumonia to give preference for hospital admission to dangerously ill cases, and especially infants and young children, as they probably benefit most from the skilled treatment and improved conditions obtaining in wards, and this has possibly been an important factor in the reduction which has taken place in the mortality.

The mortality during early adult life, although it has been reduced in somewhat similar proportions, is relatively low, for there were only 3 male and 3 female deaths per 100,000 between 5 and 15 years during 1944/46 compared with the respective figures of 26 and 21 during 1930/32. From that period onward there is a gradual increase until the ages over 65 years when the fatality of the disease rises rapidly.

TUBERCULOSIS

The number of cases of pulmonary tuberculosis notified during 1946 was 2,809, 165 more than in 1945, and of non-pulmonary tuberculosis 508, 47 less than in 1945. The notifications in recent years are as under :—

	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	All Tuberculosis.
1934-39 (average) ...	1,650	661	2,311
1940	1,908	669	2,577
1941	2,066	661	2,727
1942	2,324	714	3,038
1943	2,778	735	3,513
1944	2,758	671	3,429
1945	2,641	555	3,196
1946	2,809	508	3,317

The fall in the notifications of non-pulmonary tuberculosis first noted in 1944 continues, but there is a distinct increase in the notifications of pulmonary tuberculosis.

There was a slight fall in the number of cases of pulmonary tuberculosis notified in the 5-15 years age-group from 276 to 270. In the 15-25 years age-group, the number of male cases rose from 381 to 428 and the number of female cases fell from 645 to 605.

During 1946, 1,185 persons died from pulmonary tuberculosis compared with 1,085 in 1945. The deaths from non-pulmonary tuberculosis numbered 217, 45 fewer than in 1945. There were 112 deaths of registered tuberculous persons from non-tuberculous causes.

The notifications for bone and joint tuberculosis and meningeal tuberculosis were both identical with those for 1945, namely, 174 and 140 respectively. Other, non-pulmonary, forms of tuberculosis accounted for 194 cases.

The number of cases of pulmonary tuberculosis on the register at 31st December, 1946, was 9,421, of which 3,528 had tubercle bacilli in the sputum. There were also 2,114 cases of non-pulmonary tuberculosis, giving a total for all forms of tuberculosis of 11,535.

At the end of 1946, there were 1,526 tuberculosis patients occupying beds in Corporation and other hospitals, as compared with 1,761 in December, 1945. This further reduction of 235 available beds is caused by the loss during the year of orthopaedic beds made available by the Department of Health for Scotland in Larbert Hospital and in the Garrison Hospital, Millport, and by the partial loss of accommodation for pulmonary tuberculosis in Emergency Medical Service hospitals and in the Corporation's own hospitals. The ultimate cause of the difficulties has been the acute nursing shortage and the bed accommodation would be immeasurably less if the existing nursing staffs had not been prepared to work long hours, accept reduced leisure and holiday time, and put up with considerable understaffing of individual wards. The following table shows the number of waiting-list cases and the number of occupied beds at 31st December for each year since 1939, and from it can be inferred that if the Department had access to the 446 extra beds which it had in 1944 as compared with 1946, and having regard to the fact that the average hospital residence for each tuberculous patient in 1946 was 209 days, the waiting list on 31st December, 1946, would have been 279 instead of 1,058, or roughly one-quarter.

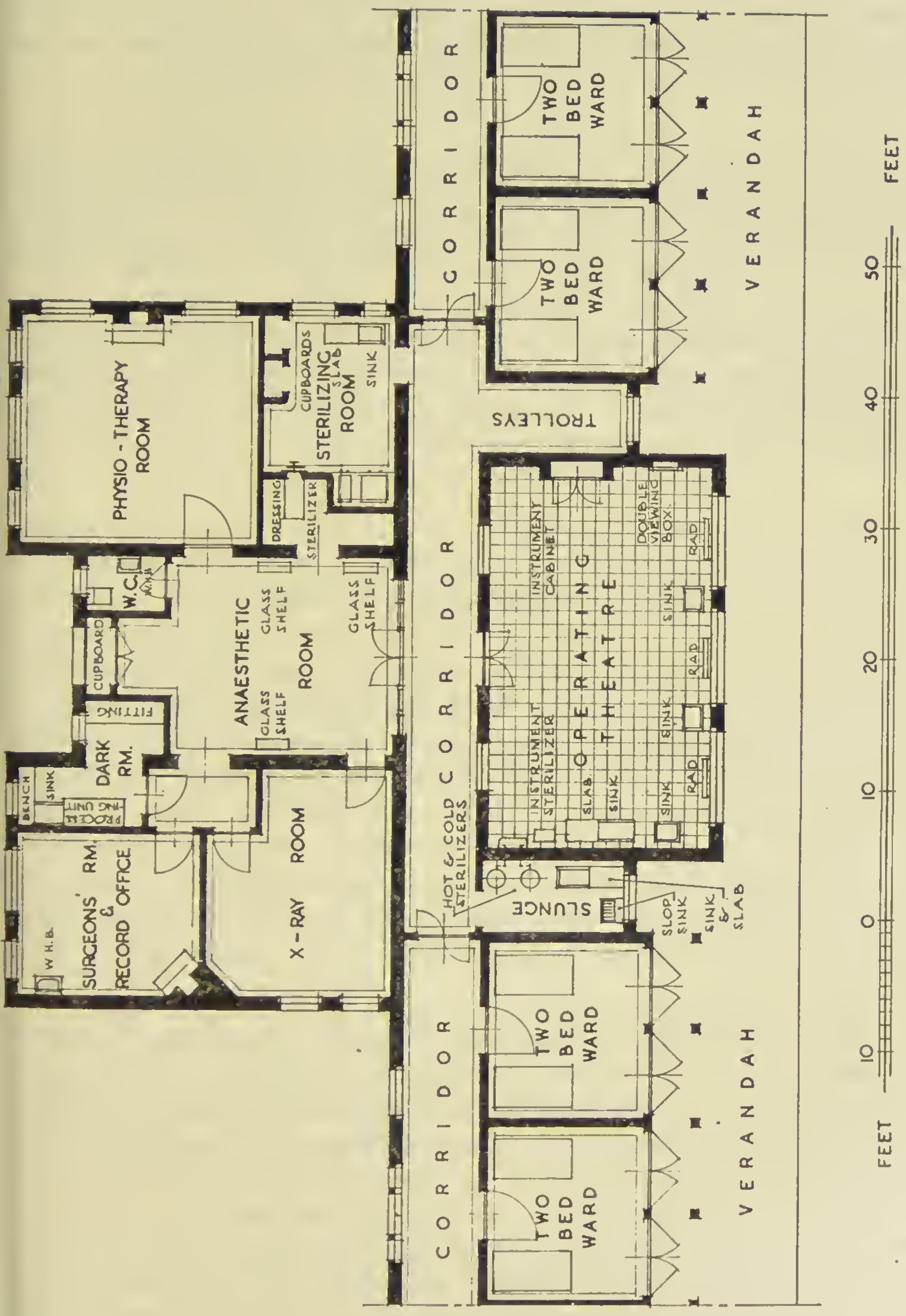
	Patients on Waiting-List on 31st December.	Occupied Beds on 31st December.
1939	127	1,374
1940	107	1,588
1941	261	1,650
1942	405	1,791
1943	743	1,921
1944	1,034	1,972
1945	1,092	1,761
1946	1,058	1,526

The following table shows the broad distribution for age and site of disease of those cases which constituted the waiting list as at the end of 1946 :—

	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Total.
Under 5 years	22	11	33
5-14 years	47	35	82
Over 15 years	895	48	943

The new chest surgical unit at Mearnskirk Hospital came into use in November, 1946, and by the end of the year was working to capacity. A plan of the unit is shown on the opposite page. This means that the Department now possesses two up-to-date chest surgical units, the other being at Robroyston Hospital, and the advantages of chest surgery are made available to all of our patients who can be expected to benefit.

Of the 2,809 cases of pulmonary tuberculosis notified during the year, 150 were from death certificates, while 351 were received from the Services in respect of men and women discharged on account of tuberculosis.



Mearnskirk Hospital : Chest Surgery Unit.

There were 9,421 cases of pulmonary tuberculosis on the register on 31st December, 1946, and of these, 888 were in the age-group 5-15 years, 46 having tubercle bacilli in the sputum. 66 per cent. of the female tuberculosis notifications during 1946 and 48 per cent. of the male were for patients between the ages of 15 and 35 years.

The Tuberculosis Dispensaries are still overburdened. Extra medical officers have been engaged and a system of medical examination by appointment introduced, with resulting benefit to the patients and to the dispensary staffs. Special examinations are made for the National Service Medical Boards and the Ministry of Pensions and in co-operation with the Ministry of Labour. The number of dispensary sessions held in 1946 was 1,233; there were 8,137 first attendances and 58,831 attendances on second and subsequent occasions. The health visitors made 65,080 domiciliary visits.

During the war, three schemes came to the fore which have had a considerable bearing on the control of tuberculosis, especially of pulmonary tuberculosis. One was mass radiography, which is expected to develop greatly in Glasgow in the near future with the promise of the provision of extra sets. The second was the introduction of the tuberculosis allowance scheme, whose end is foreshadowed by the new social insurance legislation which does not so much cancel the existing scheme as extend its benefits to all forms of tuberculosis and to non-tuberculous diseases. The third was rehabilitation, which has been largely placed in the hands of the Government sponsored " Remploy " factories, of which several have already been opened in Glasgow for ordinary disabled persons and of which the first factory for fit tuberculous persons will begin operations at North Cardonald late in 1947.

Part-Time Nursing.—With the loss of so many hospital beds in 1946, both in our own hospitals and in the Department of Health's hospitals, and the continuing demand for hospital accommodation, it was necessary to recruit every possible person for nursing. At one time, some attention was paid to the recruitment of male nurses, former sick-bay attendants in the Royal Navy or orderlies in the Army or Royal Air Force. There had to be limitations on the numbers because among other things (1) they could only be used in male wards; (2) nurses' home accommodation was limited; and (3) many were married with families and the terms of remuneration were not attractive. Part-time female helpers had for some time been employed in the wards in several of the hospitals and the hospital matrons were willing to take as many of these as possible. In December, 1946, the Gloucestershire scheme of part-time nursing became known and I was permitted to examine it in detail on the spot and was able to report favourably to the Committee. Our own part-time nursing scheme has been introduced and has been the means of the re-utilisation of about 90 tuberculosis beds as well as the giving to the entire nursing staffs of reasonable hours of duty, adequate time for leisure and for study, and the full holiday period, and to the patients of a greater share of individual attention than they had had for many years.

Special attention is being given to the problem of the pregnant tuberculous patient. A special ante-natal ward for such patients has been opened in Robroyston Hospital, and the deliveries are carried out in the Maternity Unit of the same hospital. Further treatment is given in the tuberculosis wards of the hospital.

TUBERCULOSIS ALLOWANCES SCHEME.

The special scheme of allowances to certain types of tuberculous patients continues in operation. The total number of persons eligible for this grant from its inception to 15th May, 1947, was 2,686. The position at 31st May, 1947, is set out in the following table :—

Number of persons to whom allowances payable	872
Number of persons to whom allowances ceased to be payable on recovery	1,286
Number of persons to whom allowances ceased to be payable on death	221
Number of persons to whom allowances ceased to be payable on account of receiving pensions, failing to continue treatment, etc.	307
Weekly amount of allowances being paid	£886 7 1
Total amount of allowances paid from 16th May, 1946 to 15th May, 1947	£44,269 11 7

The above figures apply to patients with pulmonary tuberculosis only, and it will be noted that in 1,286 cases the allowances ceased to be payable on the recovery of the patient and the resumption of full-time employment. The allowances are made fortnightly in advance and are sent to the patient by registered post.

BAIRD STREET ACTINOTHERAPY CLINIC.

The number of patients on the roll of this clinic at the end of 1946 was 197. During the year, 218 patients were dismissed and the results in their cases are summarised in the following table :—

	Number of Patients.			Average duration of treatment in months.		
	Healed.	Improved.	Not Improved.	Healed.	Improved.	Not Improved.
Superficial Adenitis ...	85	54	13	10·6	9·6	5·0
Abdominal Tuberculosis	19	19	—	10·8	8·9	—
Bone & Joint Tuberculosis	12	10	1	11·5	7·4	2·0
Other Tubercular Conditions	2	6	—	3·0	5·2	—
Miscellaneous	1	—	—	3·0	—	—
	109	89	14			

The results of six other cases in which the period of attendance was less than one month are excluded from the table.

During 1946, 68 patients attended the special lupus clinic on 2,285 occasions and received in the aggregate 4,053 hours of treatment from the Finsen-Lomholt lamps. Eleven were dismissed " healed " after an average of 298 hours' treatment, and eight dismissed " improved " after an average of 235 hours' treatment.

Calciferol treatment gives continued satisfaction as a method of controlling lupus vulgaris. It has been found at Baird Street Hospital that it is used to best advantage when combined with treatment by the Finsen-Lomholt lamps and by tuberculin injections. At 31.12.46, of the patients who were on treatment by the Finsen-Lomholt lamps, 36 were also getting calciferol by mouth, or occasionally, by injection and tuberculin by injection, while three were getting calciferol without tuberculin. Of the lupus patients who were not receiving treatment from the Finsen-Lomholt lamps, ten were on calciferol and tuberculin treatment and two on calciferol only. At the time of writing, another 13 patients, 68 in all, are getting calciferol in one form or another.

A guarded trial of tuberculous lesions other than in the skin by treatment with calciferol has been made. Some cases of glandular tuberculosis would seem to have responded but it is still too early to assess results.

The total number of attendances at the Actinotherapy clinic during the year was 16,953. The total number of treatments was 26,693.

The number of new cases referred for treatment was 147.

During the war the ground floor section of the actinotherapy clinic was occupied as a First Aid Post. Since September, 1946, however, it has again been taken over and is being used for male patients, thereby relieving the considerable congestion previously experienced.

FLORENCE STREET (GORBALS) X-RAY CLINIC.

During 1946 this clinic continued to function, as before, with the same staff of three persons. The unit, serving as it does as the X-ray centre for three divisions of Glasgow, and for an outside Burgh, has again dealt with a large volume of work, which, as before, shows a further increase.

The total number of patients X-rayed in 1946 was 9,629 compared with 7,738 in 1945.

Cases from tuberculosis clinics numbered 8,407, and those from ante-natal and child welfare clinics 729, while school clinics sent 59. A total of 392 was dealt with on behalf of the Burgh of Rutherglen. The remaining 24 patients comprise a small miscellaneous group X-rayed on behalf of various organisations, mainly other Corporation Departments for superannuation purposes, and the Government of New Zealand for intending emigrants.

MASS RADIOGRAPHY UNIT.

The Mass Radiography Unit, during 1946, was in operation partly at its Centre and partly at other premises. Visits were paid to the engineering works of Messrs. Harland & Wolff, Finnieston, Barr & Stroud, Anniesland, and G. & J. Weir, Cathcart. From April till June a temporary centre was set up in a church hall in London Road and 6,000 persons were examined, including employees from neighbouring cotton mills, carpet factories, printing works, bakeries and other smaller firms. Persons examined during the year numbered 23,618—12,174 males and 11,444 females.

On the average, out of every 1,000 persons of whom miniature films were taken, 78 were recalled for a full size film of the chest and 73 for clinical examination. During the year special investigations were made on the incidence of cardiac disease and in the observation of cases of tuberculosis with minimal lesions in the lungs. This accounts for the increase in the recall rate for full size films and for clinical examinations.

Of every 1,000 persons examined by miniature films, 4 required hospital treatment and 8 observation at a dispensary or under the care of their own doctor ; 6 other persons with inactive disease required no further action. In the same number, 36 cases with non-tuberculous conditions were investigated.

Of the cases of active pulmonary tuberculosis, 137 were resident in Glasgow of whom 72 were admitted to hospital and 65 were referred to a tuberculosis dispensary.

The following table summarises the results for the year :—

	Males.	Females.	Total.
Total Examinations	12,174	11,444	23,618
Number in whom large film taken	922	935	1,857
Percentage of whole	7·57	8·17	7·86
Number in whom Clinical Examination made ...	770	956	1,726
Percentage of Whole	6·32	8·35	7·31

PULMONARY TUBERCULOSIS.

A. Tuberculous Cases in which action taken :—

Total			
Number of Cases	105	178	282
Percentage of Whole	·86	1·55	1·19
Active Pulmonary Tuberculosis.			
Number of Cases	52	96	148
Percentage of Whole	·43	·84	·63
Inactive Pulmonary Tuberculosis.			
Number of Cases	53	82	134
Percentage of Whole	·43	·71	·57

B. Tuberculous Cases in which no action taken :—

Total—All Inactive Pulmonary Tuberculosis.			
Number of Cases	108	40	148
Percentage of Whole	·88	·35	·63

C. Previously known Pulmonary Tuberculosis :—

Number of Cases	41	14	55
Percentage of Whole	·34	·13	·23

SURGICAL TREATMENT IN RUCHILL HOSPITAL.

The surgical work at Ruchill Hospital during the past few years has been increasing to such an extent that it has become necessary to establish another unit in Mearnskirk Hospital.

	Number of Operations.
Adhesion Section	187
Phrenic crush	121
Thoracoplasty	65 (26 patients)
Lobectomy	8
Pneumonectomy	5
Rib resection for Empyema	13
Thoracotomy for inoperable Neoplasm	4
Bronchoscopy	31
	434

SURGICAL WORK AT ROBROYSTON HOSPITAL.

Non-Pulmonary Tuberculosis—

SITE OF LESION.	Number of Operations.
Tuberculosis of spine	2
Tuberculosis of hip	2
Tuberculosis of bones other than spinal	—
Tuberculosis of joints other than hip	14
Genitourinary tuberculosis	102
Abdominal tuberculosis	3
Tuberculosis of lymphatic nodes	1
Multiple and miscellaneous lesions (tuberculous)	—
Non-tuberculous lesions	21
Pulmonary Tuberculosis—	
(Thoracoplasty, endoscopic, pneumolysis, etc.)	234
Total	379

X-RAY WORK.

The following table shows the amount of work done at the various institutions :—

Institution	Number of Patients Skiagraphed. Indoor	Number of Patients Skiagraphed. Outdoor	Number Skiagraphs taken.	Number of Screen Examinations only.	Total Patients.
Ruchhill	4,930	11,642	19,547	5,163	21,735
Robroyston	2,643	139	3,641	3,780	2,602
Mearnskirk	3,220	696	7,030	2,157	3,916
Baird Street	—	—	—	9,952	524
Bellefield	841	—	—	949	124
Florence Street	—	—	—	—	—

VENEREAL DISEASE.

The year 1946 was outstanding in that during this period the post-war recrudescence of venereal disease reached its peak. It was reported in the Annual Report for 1945 that a rise in the incidence of venereal disease was apparent in the latter half of the year and was being continued into 1946. The first six months of 1947 show a downward trend in acute venereal disease in both males and females. The figures for 1946 show that the incidence of acute syphilis in males was 174 per cent. above the 1938 figure, compared with 46 per cent. in 1945. The corresponding figure for acute syphilis in females was 185 per cent. above the number of cases in 1938 as compared with 103 per cent. in 1945. Similarly, acute gonorrhoea both in males and females has shown an outstanding rise over the previous year as and compared with 1938.

The figures for the years 1938 to 1946 are shown in the following table :—

NEW CASES OF VENEREAL DISEASE FOR THE YEARS 1938-1946.

	Acute Syphilis.		Acute Gonorrhoea.	
Year.	Males.	Females.	Males.	Females
1938	250	124	1,426	157
1939	293	118	1,358	143
1940	465	144	1,476	165
1941	671	279	1,720	246
1942	778	395	1,536	308
1943	671	368	1,323	407
1944	454	262	1,231	406
1945	365	252	1,301	398
1946	687	356	2,463	449

Congenital syphilis, on the other hand, has not increased and there has been a slight decrease in the incidence of congenital syphilis in children under one year of age giving a rate of 1·1 per thousand live births, the second lowest figure yet attained and in spite of a fractional increase in the percentage of ante-natal blood tests returned as positive.

The total number of new and transferred in cases attending the Centres has also shown a marked increase similar to that occurring in acute syphilis and acute gonorrhoea, the new cases being almost double the 1938 figure, while the transfers in are more than six times the corresponding pre-war incidence as will be seen from the following table. This marked increase in transfers in is almost wholly accounted for by the attendance of ex-service personnel and seamen requiring continuation of treatment.

NEW AND "TRANSFERRED IN" CASES OF VENEREAL DISEASE ATTENDING THE CENTRES FOR THE FIRST TIME.

	Total New Cases.	Transferred In.
1938	5,189	245
1939	4,724	189
1940	5,021	219
1941	5,891	441
1942	6,344	642
1943	7,740	853
1944	6,544	735
1945	6,582	619
1946	9,937	1,495

In view of the trend of venereal disease in 1945 and 1946 the publicity campaign carried out both nationally and locally was intensified. The addresses and times at which sessions were held at the male and female treatment centres were printed in posters supplied by the Department of Health and put up in the public conveniences as were also posters designed by this Department. Arrangements were made to have these posters changed frequently and in view of the cessation of other forms of national propaganda they have been given greater prominence on the walls of the conveniences. As will be seen from the following table there occurred a marked rise in the attendance of patients suffering from non-venereal conditions. It is more than probable that the health propaganda carried out by the services among their personnel was responsible for the early attendance of at least some of these patients, all of whom may have had reason to believe that they were suffering from venereal disease.

ATTENDANCE OF PATIENTS SUFFERING FROM NON-VENEREAL CONDITIONS DURING YEARS 1941 to 1946.

Year.	Males.	Females.	Total.
1941	880	246	1,126
1942	1,058	398	1,456
1943	2,002	708	2,710
1944	1,656	721	2,377
1945	1,674	799	2,473
1946	3,027	650	3,677

With the increase in cases during the year the centres made an increased effort to hold patients and both the follow-up letters and the home visitation showed a marked increase with continued satisfactory results. On the other hand, although the centres obtained appreciably increased results in the work of contact tracing the attendance of contacts is still below the optimum. There has been a marked falling-off also in the notifications under Defence Regulation 33B consequent on the reduction in the armed forces. The Regulation has been little used by the civil centres and the majority of the notifications received since the institution of the Regulation were from the services and specially from the Canadian Authorities.

The following table shows the contact-tracing work carried out by the staff at the Male and Female *ad hoc* Centres :—

VENEREAL DISEASES, 1947—*Ad hoc* CLINICS.

Contact Tracing, and Follow-up of Sources of Infection.

Referred by Male Clinics.

	Wives.		Consorts.	
	Number.	Percentage.	Number.	Percentage.
Attended	243	90·0	75	56·0
Did not attend ...	27	10·0	59	44·0
	270		134	

Total Referred, 404 ; Total attended, 318—78·7 per cent.

Referred by Female Clinics.

	Husbands and Consorts.	
	Number.	Percentage.
Attended	57	67·9
Did not attend	27	32·1
Total Referred	84	

Under Defence Regulation 33B any person who has been named by two patients as the source of their infection can be compelled to submit to examination, and if found infectious, to treatment. Action is taken in Glasgow on the receipt of one notification resulting in the attendance of a considerable number of contacts for treatment. The total number of notifications has dropped from 256 in 1945 to 42 during the present year.

The following table will illustrate the working of the Regulation in Glasgow during 1946 :—

DEFENCE REGULATION 33B—FOR THE YEAR 1946.

	Male.	Female.
Form I. Received	4	38
Visits Made	—	32
Suspects Found	4	13
Suspects did not attend	—	1
Suspects not found	—	5
Suspects gone away	—	11
Suspects came to Clinic	1	10
Suspects attending when notified ...	3	6
Insufficient Data	—	5
Suspects to attend own Doctor ...	—	—
Suspects notified twice	—	—
Suspects notified thrice	—	—
Total	4	38

Syphilis.—The number of male patients suffering from acute syphilis coming to the clinics for the first time in 1946 was 687 which compares with 365 in the year 1945 and 454 for the year 1944. The incidence of acute syphilis in females increased from 252 in 1945 to 356 in 1946 which compares with 262 in 1944. Patients suffering from late syphilis decreased to 315 in 1946 compared with 411 in 1945. These statistics have already been discussed. Penicillin is used only in seamen suffering from acute syphilis who require speedy completion of their treatment but an investigation is being carried out into the use of large doses in the treatment of secondary syphilis, a total dosage of 10,000,000 units being used but the final results have not yet been assessed.

Congenital syphilis has remained steady at all ages except under one when there has been a slight decrease in the incidence. The following table shows the position during the past 25 years :—

CONGENITAL SYPHILIS.

Year.	All Cases.	Cases—1 Year.	Rate per 1,000 Live Births.
1922 ...	1,023	335	12·8
1927 ...	551	119	5·0
1932 ...	240	72	3·2
1937 ...	177	36	1·6
1941 ...	67	15	0·75
1942 ...	71	27	1·3
1943 ...	97	32	1·4
1944 ...	83	29	1·3
1945 ...	72	32	1·6
1946 ...	72	27	1·1

The rise in the incidence of acute syphilis in females is reflected in the results of the blood test, which can be seen from the following table :—

PRE-NATAL BLOOD TESTS.

Year.	Number.	Percentage. Positive.
1925	—	4·9
1930	1,749	2·8
1935	3,334	1·8
1940	8,714	1·3
1942	10,265	1·18
1943	11,067	1·7
1944	10,260	1·3
1945	10,853	1·18
1946	13,946	1·23

All specimens are submitted to the Kahn Test, and if positive, to the Wassermann Test which is applied to the same specimen and a repeat specimen requested. In future it is proposed to apply a modified Laughlan Test as a screening test to the ante-natal specimens.

The essential factor in the treatment of expectant mothers who may suffer from syphilis is that the patients are treated where they are found. There are special sessions at ante-natal centres and should the patient have come under treatment too late to have a healthy child, mother and child are both treated at the same maternity and child welfare centre.

Gonorrhoea.—As already mentioned the incidence of acute gonorrhoea has risen considerably during the year, there being 2,912 cases in 1946 compared with 1,699 in 1945. This increase has not been maintained during the first part of 1947. Penicillin is now used as a routine treatment in both males and females, a total of 300,000 units being given. A special survey was carried out during 1946 by Dr. J. G. McGregor Robertson, Senior Consultant, and it was found that with a dosage of 150,000 units the results in almost 15 per cent. of the cases were unsatisfactory. Penicillin is also used in the treatment of non-specific urethritis and similar conditions. Chronic gonorrhoea in both males and females has continued at a low level and the exact figures for this stage of the disease in females are shown in the following table :—

CHRONIC GONORRHOEA IN FEMALES.

Year.	Number.
1938	312
1939	266
1940	229
1941	119
1942	88
1943	93
1944	54
1945	42
1946	48

Venereal Disease in Seamen.—The rise in the incidence of transfers in has already been noted. Seamen continued to form a proportion of the patients attending the male centres but as will be seen from the following table the percentage has fallen steadily since the peak year of 1942 and is now below the pre-war percentage :—

BLACK STREET, BROOMIELAW, BELLAHOUSTON CLINICS.

NEW AND TRANSFERRED-IN PATIENTS.

PROPORTION OF SEAMEN TO TOTAL CASES.

	Early Syphilis.			Acute Gonorrhoea.		
	All.	Seamen.		All.	Seamen.	
1939	265	54	20·4%	1,133	75	6·6%
1940	403	133	33·0%	1,210	224	18·5%
1941	793	434	54·7%	1,671	539	32·3%
1942	1,082	589	54·4%	1,543	532	34·5%
1943	1,149	577	50·2%	1,393	436	31·3%
1944	831	452	54·3%	1,356	428	31·6%
1945	679	228	33·6%	1,478	370	25·0%
1946	1,264	164	13·0%	3,070	435	14·2%

In-Patient Treatment.—During the year 1946, 448 patients were treated in hospital, compared with 486 in 1945. The number of male patients admitted to Belvidere Hospital was 171 in 1946, a decrease of 31 compared with the previous year. Patients admitted to Baird Street Auxiliary Hospital and Ruchill Hospital decreased from 265 in 1945 to 255 in 1946. The following table shows admissions of patients to hospitals of the Local Authority and elsewhere for the treatment of venereal disease :—

TOTAL NUMBER OF PATIENTS ADMITTED FOR IN-PATIENT TREATMENT.

	Sex.	Primary Syphilis D.G.+W.R.−	Primary Syphilis W.R.+	Secondary Syphilis.	Latent Syphilis. (1st year).	All Later Stages.	Congenital Syphilis.	Extra-genital Infection.	Acute Gonorrhoea.	Chronic Gonorrhoea.	Soft Chancre.	Non Specific Venereal Disease.	Non-Venereal.	Total Admissions.	Aggregate Days' Residence.	Average Days'
Belvidere Hospital	M.	13	36	22	1	23	1	2	40	4	12	12	5	171	3,913	22
Baird Street ...	M.	—	—	—	—	—	2	—	1	—	—	—	2	5	246	4
	F.	3	10	22	1	6	4	1	29	5	—	1	9	91	4,797	52
Ruchill Hospital	M.	—	—	—	—	—	2	—	—	—	—	—	6	8	1,604	20
	F.	6	14	32	2	14	7	—	58	9	1	1	7	151	9,051	5
Other Hospitals	M.	—	—	—	—	1	13	—	—	—	—	—	—	14	531	37
	F.	—	—	—	—	2	6	—	—	—	—	—	—	8	161	2
Totals		22	60	76	4	46	35	3	128	18	13	14	29	448	20,303	4

Attendance of Patients.—Patients attending for the first time the various treatment centres numbered 9,937 compared with 6,582 in 1945. There were 149,933 attendances of new and old cases and 448 patients were admitted for in-patient treatment, 79 being admitted directly without previous attendance at a centre. Corporation *ad hoc* centres dealt with 95·4 per cent. of all acute venereal disease.

The following table summarises the attendances of new patients at the various centres :—

	Ad Hoc Treatment Centres Males.	*Ad Hoc* Treatment Centres Females.	Glasgow : All Centres
Acute Syphilis (includes Primary, Secondary, and Latent in the First Year of Infection)	631	267	1,043
Acute Gonorrhoea	2,450	425	2,912
Total Acute Venereal Disease	3,081	692	3,955
Late and Congenital Syphilis	101	92	387
Chronic Gonorrhoea	35	48	83
Total Chronic Venereal Disease	136	140	470
Other Diseases, including Soft Sore, Septic Balanitis, etc.	1,505	67	1,835
Non-Venereal	2,915	504	3,677

Incidence of Jaundice.—There was a rise in the incidence of jaundice of all degrees among new cases of early and late syphilis under treatment at the male *ad hoc* centres, the majority of the cases occurring in one of the centres which has not yet had an autoclave installed. It is hoped to obtain and instal suitable apparatus early in 1947. During the year, of 631 cases of early syphilis attending the centres, 8·2 per cent. developed jaundice compared with 5·4 per cent, in 1945, while 6·7 per cent. out of 101 cases of late syphilis developed this complication. Only two of the early syphilitic jaundiced patients required treatment in hospital and none of the cases of jaundice in late syphilis.

Issue of Salvarsan Substitutes to Medical Practitioners.—During the year 20 medical practitioners received free supplies of salvarsan substitutes for the treatment of private patients. The toal number of doses issued was 748, which compares with 553 in 1945.

Follow-up of Defaulters.—As has already been mentioned, the follow-up of defaulters by personal visits of the nurse almoners, and in the case of males by follow-up letters and visits by the senior attendants of the male centres, has resulted in a high proportion of the patients resuming treatment. During the year the nurse almoners visited 1,656 female patients on 2,700 occasions and persuaded 79·2 per cent. of the patients to resume treatment. Wrong name and address had been given on 85 occasions.

With regard to the males, 3,063 follow-up letters were sent to 1,918 patients who defaulted during treatment, and 79·5 per cent. of the patients resumed treatment. This compares with 2,178 follow-up letters sent to 1,392 patients during 1945, with 78·0 per cent. of the patients during that year resuming treatment. Wrong name and/or address were given by 19·8 per cent. of the defaulting patients.

SECTION V.

PORT HEALTH AUTHORITY.

Following the withdrawal on 31st December, 1945, of the order extending the jurisdiction of the Glasgow Port Health Authority, the year 1946 commenced with staff at pre-war strength. Normal boarding arrangements, however, could not be put into operation owing to the reservation by the Admiralty of anchorages at the Tail of the Bank, Greenock, for the use of various Admiralty vessels, and, for a period of some months, the T.S.S. "Queen Elizabeth," which returned to the Clyde to undergo repairs and refitting following her use as a troop transport. Consequently boarding had to be carried out at a point off Gourock, an arrangement which caused the officer on boarding duty to be absent from the office at Princes Pier for long periods. Several applications were made during the year to the authorities concerned for a return of the boarding facilities off Princes Pier without result, and it was not until the 10th December that the Admiralty relinquished control of the reserved anchorages and the pre-war boarding arrangements were resumed.

Despite the above difficulty boarding was carried on continuously throughout the year, and although the number of arrivals was not as high as pre-war figures, some 831 vessels from foreign ports, either direct or coastwise, were dealt with. Of this number 770 proceeded up river to the docks at Glasgow. Particulars of arrivals are given in the tables below. In addition, 243 vessels arrived from the Irish Free State.

NATIONALITY OF VESSELS ARRIVING DURING 1946.

Nationality.	Ships.	Crews.	Passengers.
British	604	38,178	63,075
Danish	13	339	11
Dutch	14	906	2,096
Finnish	1	32	—
French	2	82	—
Greek	8	285	2
Norwegian	44	1,803	762
Panamanian	2	58	—
Polish	3	69	2
Russian	2	93	—
Spanish	1	35	—
Swedish	44	1,224	15
U.S.A.	93	4,217	3,272
Total	831	47,321	69,235

TONNAGE OF VESSELS ARRIVING DURING 1946.

Month.	Number of Ships.	Tonnage.
January	53	206,626
February	72	252,418
March	74	286,317
April	52	189,678
May	68	270,736
June	63	253,268
July	70	267,716
August	77	282,852
September	88	347,533
October	76	294,053
November	72	279,745
December	66	251,019
Total	831	3,181,961

NATIONALITY OF SHIPS' CREWS ARRIVING DURING 1946.

Month.	British.	Natives of India.	Chinese.	Other Nationalities.	Total.	Passengers
January ...	1,874	534	—	822	3,230	5,774
February ...	1,874	605	95	893	3,467	252
March	2,252	675	—	1,488	4,415	8,122
April	1,384	710	64	858	3,016	2,726
May	2,679	578	53	728	4,038	666
June	2,234	303	46	851	3,434	6,824
July	2,854	567	—	782	4,203	9,298
August	2,737	994	76	440	4,247	8,640
September ...	3,801	814	95	617	5,327	11,406
October	2,946	522	147	819	4,434	11,098
November ...	2,392	796	205	588	3,981	4,350
December ...	2,456	563	55	455	3,529	79
Total ...	29,483	7,661	836	9,341	47,321	69,235

NUMBER OF SHIPS FROM FOREIGN PORTS AND IRISH FREE STATE DURING 1946.

Month.	FROM INFECTED PORTS.									FROM NON-INFECTED PORTS.			TOTAL.			From Irish Free State
	Class 'A'—Direct.			Class 'B'—Coastwise.			Total 'A' and 'B'			Direct and Coastwise.			From Foreign Ports.			
	Ships	Crews	Passengers	Ships	Crews	Passengers	Ships	Crews	Passengers	Ships	Crews	Passengers	Ships	Crews	Passengers	
January ...	17	1,626	5,727	5	306	—	22	1,932	5,727	31	1,298	47	53	3,230	5,774	10
February	15	696	88	8	437	—	23	1,133	88	49	2,334	164	72	3,467	252	10
March ...	24	2,225	8,085	11	613	—	35	2,838	8,085	39	1,577	37	74	4,415	8,122	13
April ...	10	931	2,718	11	732	—	21	1,663	2,718	31	1,353	8	52	3,016	2,726	18
May ...	20	1,180	561	11	1,026	1	31	2,206	562	37	1,832	104	68	4,038	666	20
June ...	10	880	6,240	6	330	—	16	1,210	6,240	47	2,224	584	63	3,434	6,824	18
July ...	22	1,947	9,289	6	277	—	28	2,224	9,289	42	1,979	9	70	4,203	9,298	12
August ...	17	1,444	8,617	13	918	—	30	2,362	8,617	47	1,885	23	77	4,247	8,640	24
September	17	1,534	11,373	6	959	—	23	2,493	11,373	65	2,834	33	88	5,327	11,406	24
October ...	11	1,168	9,120	6	354	—	17	1,522	9,120	59	2,912	1,978	76	4,434	11,098	46
November	11	886	1,130	6	349	—	17	1,235	1,130	55	2,746	3,220	72	3,981	4,350	27
December	9	441	36	6	331	—	15	772	36	51	2,757	43	66	3,529	79	21
TOTAL ...	183	14,958	62,984	95	6,632	1	278	21,590	62,985	553	25,731	6,250	831	47,321	69,235	243

During the year, 175 cases of illness were found on board on arrival, and the following table shows how they were dealt with :—

CASES FOUND ON ARRIVAL.

Disease.	Removed to Hospital.	Sent Home.	Referred to Clinic.	Left on Board.	Died.	Total.
Diphtheria ...	3	—	—	—	—	3
Enteric Fever ...	4	—	—	—	—	4
Measles	8	—	—	—	—	8
Dysentery ...	4	—	—	—	—	4
Malaria	33	1	—	—	—	34
Pneumonia ...	19	—	—	—	—	19
Mumps	1	—	—	—	—	1
Pulmonary T.B.	6	1	—	—	—	7
Chickenpox ...	2	—	—	—	—	2
Rheumatic Fever	1	—	—	—	—	1
Influenza ...	1	—	—	1	—	2
Jaundice ...	4	—	—	—	—	4
Catarrhal Jaundice	1	—	—	—	—	1
Broncho-Pneumonia	3	—	—	—	—	3
Acute Pleurisy	1	—	—	—	—	1
Pyrexia	2	—	—	—	—	2
Venereal Disease	6	—	—	—	—	6
Accidents ...	13	—	—	—	—	13
Other Illnesses	59	—	—	1	—	60
Total ...	171	2	—	2	—	175

Smallpox.—Three vessels, one with a suspected case of smallpox on board and two having had a case on board during the previous six weeks, arrived during the early months of the year.

On the 15th March the M.V. " Batory " arrived at the Tail of the Bank and during inspection an Army Officer was suspected to be suffering from an attack of modified smallpox. The patient left Secunderabad (India) on the 16th February, having been stationed in this vicinity for several months, where he stated smallpox was present. He also reported having visited a hospital there, where cases of smallpox were isolated, although he had no direct contact with them. On the above date he travelled in a " mixed " train from Secunderabad to a transit camp at Deolali, where it is possible he became infected.

He embarked on the M.V. " Batory " at Bombay on the 26th February and sailed on the 28th February. On the 1st March the patient complained of general malaise and backache. The eruption appeared on the 3rd March, on which date he was was isolated in the troop hospital and on arrival at Glasgow was removed to hospital where he recovered.

The prescribed measures carried out were, disembarkation of sick, medical inspection and vaccination of passengers and crew numbering 1,910, notification of contacts and surveillance for a period of 14 days of the members of the crew standing by the vessel. No other cases occurred among the contacts.

The M.V. " Circassia " arrived from Bombay via Suez and Port Said on the 28th March when the ship's surgeon reported having landed a case of smallpox at Suez on the 17th instant. The patient, a D.B.S., returning home reported sick on the 15th March when he was found to have a temperature of 100° and a feeling of general malaise. There was no change in his condition on the 16th but on the 17th his temperature was 102·4° and he was feeling very ill. At the time of the examination there was no rash on his body and at 2 p.m. he was put into the troop hospital for observation. A rash appeared at 4.30 p.m. the same day and he was put into hospital ashore at 9 p.m., diagnosed as suffering from smallpox. Disinfection was carried out at Suez and the patient's bedding in the accommodation and troop hospital was destroyed. Vaccination of everyone on board was carried out on the 18th and when the vessel arrived at Glasgow, medical inspection was carried out. No further cases were found. Notification of contacts was sent to the various medical officers concerned and surveillance for a period of 14 days of the members of the crew remaining on board was carried out.

On the 1st May the S.S. " Nea Hellas " arrived from Madras via Trincomalee, Bombay, Suez, Port Said and Naples. The vessel carried some 3,000 Italian prisoners of war from Trincomalee and Bombay to Naples and approximately 595 British passengers from Madras, Suez and Port Said. The ship's surgeon reported on arrival at Glasgow that he had landed at Bombay on the 9th April a case of illness which was subsequently diagnosed as smallpox. The patient, a Maltese, came on board on the 6th April when he was examined by the ship's surgeon and interviewed by the chief engineer for a post as a trimmer. He was instructed to report for duty on the 8th and on the morning of the 9th he was again examined by the ship's surgeon who found him to have a temperature of 100° and apparently very sick :

consequently he was signed off and sent ashore. Notification of the diagnosis of smallpox did not reach the ship until she arrived at Naples. Medical inspection of the passengers and crew was carried out on arrival at Glasgow. Medical Officers of Health were informed of the arrival of contacts in their respective districts and the crew were kept under surveillance for a period of 14 days.

Aliens Act, 1920.—During the year there arrived 191 ships carrying 1,158 aliens. There were no rejections on medical grounds. The following table shows the nationalities together with numbers :—

Austrian	7	Icelanders	5
Belgian	9	Iranian	2
Central and South America	5	Italian	12
Chinese	52	Norwegian	54
Cuban	2	Other Non-European ...	7
Czechs	23	Palestinian	6
Danes	39	Poles	570
Dutch	115	Portuguese	3
Egyptian	10	Spaniards	5
Esthonian	2	Swedes	2
Finns	4	Swiss	58
French	15	Stateless	8
Germans	3	Turks	3
Greek	23	U.S.A. Citizens	113
Hungarian	1		

Examination of Drinking Water.—Fourteen samples of drinking water from the supply on board ships were examined during the year, seven by the City Bacteriologist and seven by the City Analyst. The samples were submitted for examination, in two instances following sickness of gastric origin among members of crews and in three instances following complaints from members of the crew about the colour and taste of the water. Five of the samples examined by the Analyst were reported satisfactory and two unsatisfactory. All the samples examined by the City Bacteriologist were reported suitable for human consumption.

Parrots (*Prohibition of Import*) *Regulations* (*Scotland*), 1930.—Eight notices prohibiting the landing of six parrots, five parakeets, three budgerigars found on board eight vessels arriving in the port from abroad were served on the owners. In each instance a written undertaking was given to re-export the birds.

Destruction of Rats.—During the year 4,763 rats were destroyed ; 4,163 on board ship and 609 in sheds and other premises adjoining the harbour. Of the total destroyed on board ship, 3,770 were found dead after fumigation and 384 were trapped. Four hundred and seventy-four were submitted to the Bacteriologist for examination for bacillus pestis with negative results.

In former years it has been the practice to show the sub-species of the Rattus rattus group, but it has been decided in future to show them together under one heading, *i.e.*, Black Rat, as this is quite sufficient detail for an annual report. Records will continue to be kept, however, of the sub-species for future reference.

In the following tables, details are shown of the rats destroyed on board ship, in sheds and other premises.

ON BOARD SHIP.

Method of Destruction.	Infected Ports.		Non-Infected Ports.				
	Black Rats.		Brown Rats.		Black Rats.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
HCN	1,561	905	—	—	803	466	3,735
SO_2	25	10	—	—	—	—	35
Trapping ...	152	108	1	—	73	50	384
	1,738	1,023	1	—	876	516	4,154

SHEDS AND OTHER PREMISES.

Brown Rats.		Black Rats.		
Male.	Female.	Male.	Female.	Total.
115	76	244	174	609

Deratisation and Deratisation Certificates Exemption.—These certificates are granted in accordance with the requirements of Articles 19 and 20 of the Port Sanitary Regulations (Scotland), 1933 and 1945, and the work involved in their preparation has become, since their introduction, one of the more responsible duties of a Port Health Authority. They can only be granted by the authority of an approved port which is defined in the Port Sanitary Regulations as " a district in which a medical officer is authorised by the Department of Health for Scotland to grant deratisation certificates and deratisation exemption certificates." They must conform to the international model. They must be produced for perusal by port authorities in other approved ports in all parts of the world. They are valid for a period of six months. This period is only violated in the event of exceptional circumstances having arisen. Although the expression " exceptional circumstances " is not defined it may be taken to refer to a vessel infected or suspected to be infected with plague, or having an undue mortality among the rat population on board, etc. It may also apply to a vessel in possession of a deratisation certificate, on board which the rat condition has undergone a sudden change from a minimum infestation to a widespread infestation.

It is important that the certificates issued here should be of such a standard, in so far as essential details with regard to the rat condition of the vessel are concerned, that they may be accepted without question in countries abroad. For this reason, the utmost care should be exercised during the inspection of vessels requiring the renewal of existing certificates that the facts so far as they can be ascertained are recorded in exact detail. With this object in view the procedure at Glasgow is to have the vessel visited by the searchers as soon as she arrives ; begin the inspection immediately and continue daily during the discharge of the cargo down to the time discharge of cargo is complete. In this way a continuous inspection is carried on lasting over any time from a few days to two or three weeks. A careful record is kept of the conditions as they arise, and it is from the details in these records that a decision is made whether a vessel shall be granted an exemption certificate or undergo deratisation.

During the year, 308 certificates were issued, 167 exemptions, 135 after deratisation by HCN, one after deratisation by SO_2, and five after deratisation by trapping. Deratisation by trapping is only resorted to if (1) the evidence of rat infestation is so slight that the expense of a deratisation cannot be justified, and (2) there is sufficient time available to carry out trapping. Forty certificates, 39 exemptions and 1 deratisation, were issued to newly constructed vessels.

Hygiene in Crew Spaces.—Despite the steady improvement throughout the past years in the standard of accommodation provided for the use of the crew, it is a depressing fact that there has not been a corresponding improvement in the standard of cleanliness in the quarters. The problem is obviously a question of maintenance and the solution is largely a matter of co-operation between owners, officers and men—the owners to provide the accommodation desired, the officers to show their interest by regular inspections and the men to use and maintain the accommodation according to present day standards.

The recommended standard of accommodation to be provided is set out in the " Instructions as to the Survey of Masters' and Crew Spaces " issued by the Board of Trade in 1937 and re-issued by the Ministry of War Transport in 1944, together with Supplement No. 1 to the 1937 edition issued by the same body in January, 1946. The recommendations in these instructions represent the greatest advance up to the present time in construction and furnishing of crew's accommodation, but unfortunately they are only recommendations and have not the force of law behind them. As an inducement to owners, however, to carry out the recommendations in their entirety a reduction in the registered tonnage of the vessel is allowed if the accommodation complies as nearly as possible as conditions will permit with the standards laid down.

In the past, the instructions have only dealt with sleeping quarters, messrooms, latrines, etc., and it is gratifying to note in Supplement No. 1 that a very elaborate and detailed specification for ships' galleys has been set down, applicable only, however, to all new foreign-going non-passenger ships of 3,000 g.r.t. and over.

The nuisances discovered during the inspection of shipping arriving in the port throughout the year are shown in the following table :—

Functional Neglect—	Coasters.	Foreign Arrivals.	Totals.
Paintwork dirty	—	47	47
Floors and Woodwork dirty	19	75	94
Tables and Benches dirty	22	72	94
Alleyways dirty	2	80	82
Food Lockers dirty	17	78	95
Verminous condition	13	138	151
Galleys dirty	—	41	41
Scuppers choked	4	47	51
Accumulation of Rubbish	6	59	65
Beds and Bedding dirty	—	3	3
	83	640	723
Wash Places and Water-Closet Compartments—			
Troughs of W.C. Basins foul or choked	9	52	61
Floors or Woodwork dirty	2	34	36
Paintwork dirty	—	39	39
Scuppers choked	—	33	33
Flushing Apparatus defective	—	40	40
Wash Basins dirty or choked	—	41	41
	11	239	250

	Coasters.	Foreign Arrivals.	Totals.
General Neglect—			
Drinking Water Tanks ...	—	6	6
Accumulations of Garbage	—	25	25
Gear in Sleeping Compartments	—	4	4
	—	35	35
Structural Defects—			
Ports or Decklights leaking	1	36	37
Deckheads leaking	1	40	41
Heating Apparatus defective	1	38	39
Floors broken	—	11	11
Lighting defective	—	2	2
Ventilation defective	—	6	6
Food Locker Doors broken	—	6	6
Steampipes leaking	—	35	35
	3	174	177
Wash Places and Water-Closet Compartments—			
Seats broken or missing	—	40	40
Doors broken or defective	—	5	5
W.C. Basins broken	—	3	3
Lighting defective	1	—	1
Ventilation defective	1	9	10
Wash Basins broken	—	8	8
Soilpipe or Storm Valve defective	—	21	21
Floors broken	—	18	18
	2	104	106
	99	1,192	1,291

Rags, Hair, Hides and Bones—The following table shows the importation of rags, hair, hides and bones, with source of origin and number of shipments :—

Source of Origin.	No. of Ships.	Rags Bundles.	No. of Ships.	Hair Various Bundles.	No. of Ships.	Hides Various Bundles.	No. of Ships.	Bones Bags.
Europe ...	4	248	—	—	—	—	—	—
Canada ...	—	—	3	453	—	—	—	—
United States	—	—	9	2,999	3	28,500	—	—
South America	—	—	1	120	1	17	—	—
Africa ...	—	—	1	135	2	1,510	2	70
Australia and N. Zealand	—	—	—	—	3	1,001	—	—
India ...	—	—	1	307	2	94	9	17,650

Anthrax.—Three specimens of dry-salted goatskin from one consignment and thirteen of wet-salted hides from three consignments were submitted to the City Bacteriologist who reported the presence of B. anthracis in two specimens of goatskin.

The infected specimens were from a consignment from India.

No cases of anthrax occurred among the persons engaged in the discharge of the infected hides.

Food Inspection.—Approximately five hundred and forty-four thousand and nine tons of imported foodstuffs passed through the port during the year and twenty-two thousand, nine hundred and twenty eight and one half cwts. were found unsuitable for human consumption. Two hundred and thirty eight samples were submitted to the City Analyst who reported 22 either unfit for human consumption or falling short of recognised standards. Fifteen samples were submitted for bacteriological examination. Two of the 22 samples reported as unsatisfactory by the City Analyst concerned one consignment of gelatine and one of jam. The gelatine referred to as " Edible Gelatine " in the ship's manifest was found to contain 65 parts per million of copper but while there is no legal standard laid down for this commodity, the Society of Public Analysts has fixed an arbitrary standard that the amount of copper should not exceed 30 parts per million.

The jam, consisting of 1,110 cartons of tins, was manufactured in South Africa, and a sample examined by the City Analyst was found to be deficient in soluble solids to the extent of 6 per cent., there being 62·5 per cent. compared with 68·5 per cent. as laid down for home produced jam. Under S.R. and O. 1944, No. 841, Emergency Powers (Defence) Food (Preserves) which applies only to home produced jam, a standard of 68·5 per cent. is required.

Imported Food Regulations.—The following table shows the character and quantity of the foodstuffs imported direct during 1946 (but does not include coastwise or transhipped cargoes), a percentage of which was examined by the food inspectors before removal :—

Article.	Weight. Tons.	Cwts.	Article.	Weight. Tons.	Cwts.
Apples	12,973	2	Jams and Jellies	1,291	1
Acids	564	4	Lard	4,696	1
Apricots	13	6	Lemons	2,961	5
Bacon	3,386	10	Maize	35,771	10
Barley	5,201	—	Meats (canned)	15,755	19
Butter	6,679	4	Milk (canned)	9,331	16
Beans	6,678	9	Milk (dried)	5,220	4
Cheese	14,314	5	Nuts (various)	39,460	6
Coffee	2,227	18	Oats	7,405	11
Eggs	1,315	4	Oils (various)	90	18
Egg Frozen	1,788	14	Onions	9,944	19
Egg Powder	11,917	16	Oranges	30,966	12
Fruits (canned)	2,665	18	Orange and Lemon Peel	9	5
Fruits (dried)	3,279	11	Peas	2,314	15
Fruit Juices	273	1	Pears	908	17
Fruit Pulp	3	—	Pomegranates	251	14
Fish (canned, etc.)	3,818	5	Sugar	4,000	—
Farinaceous Foods	493	15	Sundries	13	1
Flour (various)	51,785	13	Tomatoes	300	—
Gelatine	11	5	Tomatoes (canned)	1,747	8
Grapes	26	17	Tea	18,194	16
Grape Fruit	3,953	19	Vegetables (canned)	197	6
Ham	432	17	Wheat	219,360	14
Honey	11	4			

Total Weight—544,008 tons, 15 cwts.

The following foodstuffs were found unfit and disposed of to the satisfaction of the Port Medical Officer :—

Article.	
Beer	192 pint tins.

Article.	Weight. Cwts.	Qrs.	Article.	Weight. Cwts.	Qrs.
Bacon	—	1	Onions	10	—
Cheese	1	1	Oranges	37	—
Flour	989	2	Potatoes	140	—
Fish (canned)	2	—	Poultry (frozen)	—	2
Fish (dried)	8	—	Tomatoes	60	—
Fruits (canned)	20	—	Tomatoes (canned)	2	3
Fruits (dried)	99	3	Vegetables (canned)	—	1
Meats (canned)	1	2	Wheat	21,400	—
Meats (pickled)	40	3	Yeast	—	2
Milk (canned)	114	2			

Total Weight—22,928 cwts., 2 qrs.

(*Note.*—189 cwts. 3 qrs. were from ships' stores).

FOODSTUFFS EXAMINED BY CITY ANALYST.

Article.	Fit for Human Consumption.	Unfit for Human Consumption or not in conformity with Regulations.	Remarks.
Apples	9	—	
Beans	2	—	
Butter	4	—	
Condiments	2	—	
Corn Starch	2	—	
Cheese	8	—	
Curd	2	—	
Egg Powder	16	—	
Egg Frozen	2	—	
Fats (various)	2	—	
Fish (canned, etc.)	10	—	
Flour (various)	8	2	Sea-water damage—850 cwts. condemned, but released for animal feeding.
Fruits (canned)	2	—	
Fruits (dried)	24	8	Sea-water damage—16 cwts. Figs, 15 cwts. Prunes and 44¾ cwts. Raisins condemned but released for animal feeding.
Fruit Pulp (various)	10	3	Contained an excess of SO_2
Gelatine	—	1	Contained an excess of copper.
Grape Fruit	5	—	
Ham and Bacon	4	2	Contaminated with copper and tanner dye. Reconditioned and passed for consumption; ¼ cwt. condemned.
Honey	1	—	
Jams and Jellies	7	1	Excessive amount of metallic tin and hydrogen present.
Lard	11	—	
Lard Compound	1	—	
Lemons	4	—	
Meats (canned, etc.)	20	—	
Milks (canned)	11	1	Slightly deficient in fat content.
Milks (dried)	10	—	
Nuts	2	—	
Oils (various)	2	—	
Olives in Brine	1	—	
Oranges	14	—	
Orange Juice	1	—	
Orange Peel	2	—	
Syrup	—	1	Contained an excess of Benzoic Acid.
Tea	12	—	
Vegetables (canned)	1	—	
Wines	1	—	
Wheat	3	3	Sea and river-water damage—500 tons released for animal feeding and 570 tons for fertilizer.

Food Insect Pest Infestation.—Sixteen vessels were fumigated during the year at the request of the Ministry of Food Insect Pest Infestation Section for the destruction of food insect pests. Absorbed hydro-cyanic acid (Cyanosorb) was used in each instance, the concentration applied varying from 8 to 12 ozs. per 1,000 cu. ft. and the time of exposure from 8 to 23½ hours. Deratisation was carried out at the same time on all the vessels and a Deratisation Certificate issued in each case.

Canteens and Restaurants.—Seventy-six visits were paid during the year to premises used as canteens and restaurants in the dock area. The premises were found to be maintained in a clean condition, and no nuisances were discovered which required the service of official intimations to have them remedied.

Public Conveniences at the Docks.—The work of modernising the public conveniences in the dock area was continued, and during the year six old shelters were demolished and six of modern design were constructed on the old sites.

PUBLIC HEALTH (IMPORTED FOOD) REGULATIONS (SCOTLAND) 1932.

The following statement submitted by the Corporation Veterinary Surgeon indicates the work done under the Foreign Meat Regulations during 1946 :—

	Examined.
Beef—	
Quarters	55,186
Boxes	24,915
Bags	136,726
Veal—	
Sides	3,273
Quarters	25
Bags	14,001
Mutton and Lamb—	
Carcases	545,801
Bags	2,031
Pork—	
Sides	59,930
Bags	31,196
Boxes	6,982
Bacon—	
Bales	12,470
Hams—	
Boxes	809
Goats—	
Carcases	14,536
Poultry—	
Turkeys, cases	3,208
Fowls, cases	18,810
Ducks, barrels	235
Offal—	
Ox Tongues, bags	199
Ox Tails, bags	830
Ox Cheeks, bags	360
Ox Livers, bags	1,025
Ox Livers, boxes	1,343
Ox Hearts, bags	2,172
Ox Kidneys, bags	1,028
Ox Kidneys, boxes	19

	Examined.
Offal—	
Ox Skirts, bags	335
Ox Sweetbreads, boxes	9
Sheep Livers, boxes	3,761
Sheep Hearts, bags	2,960
Sheep Kidneys, boxes	46
Sheep Casings, tierces	14
Lamb Sweetbreads, cases	7
Pig Livers, boxes	5,114
Pig Hearts, bags	124
Pig Kidneys, boxes	459
Pig Tongues, packages	307
Pig Casings, tierces	37
Calf Livers, boxes	746
Calf Hearts, bags	75
Calf Kidneys, cases	65
Calf Sweetbreads, bags	46
Goat Livers, crates	115
Goat Livers, boxes	115
Tongue Roots, bags	328
Sundries, packages	437
Pancreas Glands, cases	109

	Condemned.
Beef—	
Boxes	187
Bags	2
Lbs., Trimmings	329
Mutton and Lamb—	
Carcases	11
Cuts	4
Lbs., Trimmings	130
Offal—	
Ox Livers, boxes	1

SECTION VI.

HOUSING.

During 1946 the Corporation completed 976 permanent houses, to which has to be added 607 temporary houses and 289 requisitioned dwellings, making a total of 1,891 for the year. The following table shows the number of houses completed during the past nine years.

1938	2,936	1943	931
1939	2,227	1944	484
1940	980	1945	572
1941	791	1946	1,891
1942	1,124		

In view of the delays that have occurred in the construction and completion of new houses the Government has undertaken a special survey on a national scale of the capacity of the building industry to produce houses. The results have been issued as the Housing Programme, 1947. It was intended that each Local Authority would be allotted a target proportional to its needs and the labour and materials available, having regard to the requirements of industry and other essential services. Unfortunately, the severe winter of 1946/47, the coal problem and the cement shortage made the cancellation of the Programme inevitable. The housing programme has also been adversely affected by the present economic crisis and its reaction on the commercial and industrial life of the nation. It is more than likely that the housing needs of the community will have to take a lower priority with a consequent postponement of large-scale housing projects. Should such a development take place the housing situation in Glasgow is likely to become more difficult and would negative the hope of any appreciable measure of slum clearance, a project so badly needed and so long delayed.

Two other factors are likely to affect the construction of houses in Glasgow. One is the diversion of housing sites for industrial estates following on the adoption by the Corporation of the policy of encouraging in every way possible the starting up in the area of new industries. To this end a number of areas previously earmarked for housing have been transferred to the Board of Trade for development by the Scottish Industrial Estates. Such developments will help to diversify the industrial structure in the Clyde Valley and provide work for the future inhabitants of the proposed out-lying Housing Schemes. The second factor is the designating by the Secretary of State for Scotland of an area near East Kilbride as the site of a new town of 40,000 inhabitants under the New Towns Act, 1946. The construction of new towns around Glasgow and the proposals for the decentralisation of the population have been envisaged in the report of the Clyde Valley Regional Planning Committee and, if realised, will undoubtedly influence the internal planning of the city. The Order relative to East Kilbride included a decision to limit the size of Castlemilk Estate, about to be developed by the city for housing, to 1,000 acres in order to broaden the proposed green belt between the city and the new town and to retain in production four dairy farms of some 500 acres. With regard to the production of new houses, a satisfactory rise in the number completed is apparent in the post-war period and every effort is being made to utilise traditional and non-traditional methods, private enterprise as well as direct labour. The temporary housing programme is now nearing completion and the experimental types of houses previously mentioned are in production and being erected in limited numbers. The foam slag factory, the city's own non-traditional effort, is now turning out houses which are being erected on the Maukinfauld site. In the Priesthill area it is proposed to instal district heating in the 560 flats and public buildings to be built on this site. Although a small experimental scheme of district heating at Craigton has been in operation for many years the Priesthill project will provide an opportunity to study the conditions and problems in the utilisation of district heating specially towards the solution of the problem of smoke abatement. The Housing Committee have also had prepared a design for a group of houses for aging persons. It is proposed to erect in the Queen's Park area a group of 23 cottages with a community room and a caretaker's house. Like the single persons' flats, such a unit will assist in providing accommodation for tenants of large Corporation houses who now wish smaller residences.

With regard to existing housing property, two movements have been apparent during the year :—The selling instead of letting of individual houses, even of one apartment, in tenements, and the increased tendency of owners to abandon deteriorating house property in the poorer areas of the city when no longer profitable. The former movements makes the obtaining of accommodation dependent on the ability to pay a considerable sum for sometimes an indifferent dwelling and is being met by the Local Authority with the requisitioning powers available to them. Every effort is being made to secure vacant dwellings being held for sale for the inadequately-housed. The problem of deteriorating property is not easy of solution. Extensive repairs are often necessary and it is only the extreme housing shortage that compels the Local Authority to take the necessary action to have the repairs carried out instead of utilising the powers of the Housing Acts. Where properties have been abandoned the Secretary of State has permitted the Local Authority to use requisitioning powers with regard to suitable properties.

With the increased industrial activity in the city there is a pressing need for office accommodation but it is imperative that housing property should not be utilised at this juncture for commercial purposes. Defence Regulation 68CA confers powers on the Local Authority to control such conversions and it is rarely that permission is given if the accommodation can be made available for housing although the owner has a right of appeal to the Secretary of State against the Corporation's decision. Recently Government Departments have themselves been guilty of adapting property for offices that might have been converted into housing accommodation.

During the year the squatting movement started, at first in empty service camps, but later in private property and, in some cases to houses closed under the Housing Acts. The occupation of condemned property was strongly discouraged and seldom persisted in after the position was explained to the families but in some cases the owner had to institute legal proceedings. Every effort has been made by the Public Health Department to mitigate the lot of the squatters in the service camps, some of which were in a very unsatisfactory state with only primitive sanitary facilities.

Applications for certificates under the Rent and Mortgage Interest Restrictions Acts, 1920-29 continued at a high level. The following table shows the number of applications from 1938 to 1946 :—

1938 ...	35	1943 ...	51
1939 ...	29	1944 ...	81
1940 ...	3	1945 ...	437
1941 ...	8	1946 ...	271
1942 ...	3		

Of the 271 applications for certificates during the year 1946, 175 were granted, 87 were refused and 9 were cancelled. There were 92 applications by house factors for reports, 86 of which were granted, 1 being refused and 5 cancelled.

Statistics of decrowding in relation to houses vacated by families removed to new houses are shown in a table, as follows :—

DECROWDING OPERATIONS.

CONDITION OF VACATED HOUSES SINCE THE COMING INTO FORCE OF THE HOUSING (SCOTLAND) ACT, 1935.

Size of House.	No. of Houses inspected.	Over-crowding removed.	Over-crowding reduced.	Over-crowding unchanged.	Over-crowding increased.
One apartment	4,376	3,269	939	102	66
Two apartments	10,619	8,476	1,550	260	333
Three apartments	3,070	2,730	208	44	88
Four apartments and up ...	359	317	22	2	18
Total ...	18,424	14,792	2,719	408	505
		80·3%	14·8%	2·2%	2·7%

Out of 18,424 houses inspected subsequent to the transfer of the occupants to Corporation houses since the passing of the Housing (Scotland) Act, 1935, 19·7 per cent. were found to be again overcrowded compared with 20 per cent. in 1945.

During the year 26 houses were represented by the Medical Officer of Health to the Housing Committee as uninhabitable.

HOUSING ACTS.

NUMBER OF HOUSES REPRESENTED SINCE 1923 AND ACTION TAKEN.

	Number of Houses represented.			Number of these Houses actually closed in each Year.		
Year.	Under Slum Clearance Schemes	Under Closing and Demolition Orders	Together.	Slum Clearance Schemes.	Closing and Demolition Orders.	Together.
1917-1937 ...	8,635	8,278	16,913	8,545	7,605	16,150
1938	—	467	467	89	914	1,003
1939	36	275	311	2	347	349
1940	—	157	157	—	213	213
1941	—	52	52	—	74	74
1942	—	4	4	—	13	13
1943	—	46	46	—	47	47
1944	—	19	19	—	19	19
1945	—	13	13	—	12	12
1946	—	26	26	—	26	26
Totals ...	8,671	9,337	18,008	8,636	9,270	17,906

With regard to the rehousing of tuberculous families, 462 recommendations were made to the City Improvements Department during 1946 of which 51 families have since been rehoused. In addition, 169 families, recommended in previous years, were rehoused in 1946, making in all 220 for the year. This compares with a total of 124 families rehoused in 1945.

INSPECTION OF HOUSING SCHEMES.

(*a*) CONDITION AS TO CLEANLINESS.

The number of houses in the various rehousing schemes reported on is 14,769.

No. of tenants under supervision at 1st January, 1946 ...		14,747	
Of which evicted or left owing rent during 1946	19		
Of which left voluntarily during 1946	246		
		265	
Of which remaining at 31st December, 1946			14,482
No. of tenants obtaining entry during 1946	—	258	
Of which evicted or left owing rent during 1946	—		
Of which left voluntarily during 1946	—	—	
Of which remaining at 31st December, 1946			258
Total number of tenants remaining as at 31st December, 1946			14,740

During 1946 the nurse inspectresses made 69,106 primary visits, the condition of the houses being recorded at the time of the visits as "Clean" 44,043, "Fair" 23,956, and "Dirty" 1,107. Further visits numbering 2,397 were made to the less satisfactory tenants.

At the beginning of the year 14,747 households were under supervision and at the end of the year 14,740—a decrease of 7. The number of new tenants was 258. There were 265 removals or 1·8 per cent. of the total occupancies.

The changes in the condition of the 14,482 households under supervision throughout the whole year were as follows :—

	Condition at End of Year.				Group
	Clean.	Fair.	Dirty.	Totals.	Percentages.
Condition at beginning of Year—					
Clean	8,974	266	—	9,240	63·8
Fair	583	4,421	30	5,034	34·8
Dirty	2	67	139	208	1·4
	9,559	4,754	169	14,482	100·0
Group Percentages	66·0	32·8	1·2	100·0	—

A similar table is given for the 258 tenants who obtained entry during the year and who were still resident in the schemes at the close.

	Condition at End of Year. Clean.	Fair.	Dirty.	Totals.	Group. Percentages.
Condition at date of Entry—					
Clean	112	24	—	136	52·7
Fair	29	91	—	120	46·5
Dirty	1	—	1	2	0·8
	142	115	1	258	100·0
Group Percentages	55·0	44·6	0·4	100·0	—

The condition prior to the removal of houses occupied by families who were evicted or left owing rent and by tenants removing voluntarily during the year is compared in the following table :—

	Tenants Evicted during 1946. No.	Tenants Evicted during 1946. Group Percentages.	Tenants Removing Voluntarily during 1946. No.	Tenants Removing Voluntarily during 1946. Group Percentages.
Condition at date of Removal—				
Clean	4	21·1	165	67·1
Fair	13	68·4	79	32·1
Dirty	2	10·5	2	0·8
	19	100·0	246	100·0

Of 14,740 houses occupied at the end of the year 9,701 were regarded as " Clean," 4,869 as " Fair," and 170 as " Dirty," representing 65·8 per cent., 33·0 per cent., and 1·2 per cent. of the total. The corresponding percentages at the end of 1945 were 63·8 per cent., 34·8 per cent., and 1·4 per cent.

(*b*) BUG INFESTATION.

The total number of houses in which evidence of the presence of bed bugs was found was 161, or 1·1 per cent., as against 1·0 per cent. in 1945 when the lowest percentage was recorded. This increase is insignificant. Analysis of this figure shows that only a " trace " of bed bugs was found in 33 houses or 0·2 per cent.. which was the same percentage as recorded in 1945. In this group of houses only old hatched eggs or bug casts but no living bugs or eggs were found in the beds or on furniture, pictures or other household belongings. In 23 houses or 0·2 per cent., compared with 0·1 per cent. in 1945, a " medium " degree of infestation was found and by this is meant that living bugs or eggs were found in beds or on furniture, pictures or other household belongings but not in the structure of the building itself. This condition is readily remedied by the tenants by applying the ordinary methods of household cleansing under the direction of the nurse inspectresses. In 105 houses, or 0·7 per cent., which is the same percentage as in 1945, a "serious" degree of infestation was found. In these houses living bugs or eggs or both were found in beds, on furniture or on picture rails, skirting or door facings. The eradication of bugs in these houses requires the co-operation of the tradesmen of the Maintenance Section of the Housing Department, whose procedure is to remove the infested woodwork from walls and apply the blow lamp directly or a contact insecticide. There are now very efficient insecticides at our disposal, such as D.D.T. and Gammexane ("666"), although these chemicals cannot be expected to control re-infestations among the tenants whose houses are most liable to develop the nuisance. In the great majority of these houses infestation was detected at a fairly early stage by the nurse inspectresses. This is very important because it reduces to a marked degree the amount of interference with structures which has to be carried out by tradesmen. In no houses throughout the year was fumigation by a lethal gas adopted.

The table submitted herewith shows the progress made during the past thirteen years in the prevention of bug infestation which has fallen from 10·7 per cent. in 1934 to 1·1 per cent. in 1946. It should be noted that serious infestation has fallen during that period from 7·1 per cent. to 0·7 per cent. throughout the rehousing schemes. This progress is further proof that the preventative system which has been practised in Glasgow during the past thirteen years is thoroughly sound, as it depends for its success upon the cleanliness of tenants and the supervision of them by the nurse inspectresses who are specially trained in the work of prevention of infestation by the bed bug.

PROGRESS OF BUG INFESTATION PREVENTION IN REHOUSING SCHEMES.

	Number of Houses Inspected.	Number of Houses in which Bed Bugs were found.				Percentage of Total Number of Houses			
Year.		Trace.	M.I.	S.I.	Total.	Trace.	M.I.	S.I.	Total
1934	8,670	104	210	612	926	1·2	2·4	7·1	10·7
1935	10,576	218	368	378	964	2·1	3·5	3·6	9·2
1936	12,803	220	296	295	811	1·7	2·3	2·3	6·3
1937	13,676	253	165	304	722	1·8	1·2	2·2	5·2
1938	14,416	138	69	240	447	0·9	0·5	1·7	3·1
1939	14,609	79	62	168	309	0·5	0·4	1·2	2·1
1940	14,669	55	75	185	315	0·4	0·5	1·2	2·1
1941	14,731	51	65	94	210	0·3	0·4	0·7	1·7
1942	14,751	34	61	121	216	0·2	0·4	0·8	1·4
1943	14,769	25	51	120	196	0·2	0·3	0·8	1·3
1944	14,769	21	26	110	157	0·1	0·2	0·8	1·1
1945	14,769	31	21	108	160	0·2	0·1	0·7	1·0
1946	14,769	33	23	105	161	0·2	0·2	0·7	1·1

Trace—Trace of Bugs. M.I.—Medium Infestation.
S.I.—Serious Infestation.

SECTION VII.

BACTERIOLOGICAL LABORATORY.

The examinations performed in the Bacteriological Laboratory during 1946 numbered 82,425 compared with 69,930 in the previous year. This includes 2,213 examinations by new or special ways to control routine results by other methods, but does not include the large number of tests carried out to perfect a new test for syphilis or to investigate gastro-enteritis.

ORIGINAL INVESTIGATIONS.

Screen Tests.—Simple, so-called " screen " tests which will eliminate a large percentage of negative specimens are desirable when large numbers are dealt with. This was stressed in last year's report. Investigations to perfect such tests have continued along the following lines.

For syphilis a simple mechanically operated slide test has now been applied by Dr. Stevenson and has been extensively tested. This is essentially the Laughlen test, modified to stabilise its sensitivity at a very high level so that it detects all sera in which the smallest amount of syphilis " reagin " is present. In a series of 12,000 trials done in parallel with Kahn and Wassermann Tests the new screen test proved perfectly reliable in untreated cases.

For the diagnosis of tuberculosis the value of fluorescent microscopy has been investigated, especially as a possible time-saving technique. Specimens were examined in parallel by the long-established Ziehl-Neelsen staining method and by fluorescence. Specimens required about the same amount of preparation by each method, but the time spent in actual microscopy was checked by stop-watch. The following table shows the results of this experiment.

TABLE I.

No. of specimens.	*Time of examination (hours).*		*Positives.*	
	Ziehl-Neelsen.	*Fluorescence.*	*Ziehl-Neelsen.*	*Fluorescence.*
1,812	77·5	44·25	516 (27·9%)	523 (28·3%)

At first glance the value of fluorescent microscopy appears to be confirmed. Unfortunately, however, much greater discrimination is required in interpreting results, and consequently it was considered essential to confirm all positive results by routine staining methods. Although a convenient and quick technique was evolved for doing this, the extra time required greatly reduced the benefit of fluorescent microscopy. It was finally decided that, although the method may be ideal for dealing with large numbers of specimens with a very small percentage of positives, yet in this laboratory, where almost 30 per cent. of specimens are positive, the slight saving in time and the insignificant increase in accuracy do not compensate for the very considerable strain imposed on the workers concerned. For the needs of this laboratory, then, fluorescent microscopy has failed as a screen test but has been retained as a useful supplementary technique in special circumstances.

Gonorrhoea.—The new transport method evolved in this laboratory and mentioned in last year's report has been thoroughly tested in clinical practice. Previously the feeble viability of the gonococcus prevented the application of cultural methods to its identification in specimens from suspected cases which could not be examined within one or two hours after being taken. The special transport method maintains the viability of the gonococcus in such specimens for over 24 hours and permits material to be sent from clinics throughout the city to the central laboratory. Table II shows results achieved over the year, and compares ordinary stained film examination and culture.

TABLE II.

Smear	+	+	0	0
Culture	+	0	+	0
Suspected Cases	97	14	29	250
Chronic Cases and Tests for cure	16	10	16	404
Total	113	24	45	654

+—Positive 0—Negative

This combination of smear and culture discovered 24 per cent. more positives than smear examination alone and helped very considerably in the difficult investigation of gonorrhoea in females. A paper describing these results will shortly be published.

Certain technical difficulties associated with the new transport method have been extensively investigated and have been satisfactorily overcome. An account of this investigation also will be published soon.

Trichomoniasis.—The importance of the parasite *Trichomonas vaginalis* in female leucorrhoea has been much debated. The gonococcal transport method proved applicable to specimens from this disorder A total of 710 specimens were examined for living trichomonas and the results in 401 instances were controlled by parallel microscopic examination of stained smears. *T. vaginalis* was found in approximately 50 per cent. of women with vaginal discharge and in almost 40 per cent. of women in whom there was no evidence of inflammatory disorder, who were examined as a test for cure of gonorrhoea.

Gastro-Enteritis.—The perennial problem of this condition has continued to receive much attention in the laboratory. Many lines of investigation have been tried but have not led to any noteworthy development. Dr. Berkeley, as a voluntary worker in the laboratory, has investigated the incidence of *B. coli neopolitanum* in the faeces from a considerable number of gastro-enteritis cases but has failed to confirm the suggestion by Bray (1945) that this organism is significantly associated with the disease. At present workers in the laboratory are engaged in determining the incidence of various other strains of coliform bacilli in such specimens in order to find out whether any are likely to have an etiological association with gastro-enteritis. This is a very tedious and difficult investigation, involving something like 20,000 separate serological tests and will obviously take some time to complete. No preliminary conclusions can be given.

Streptococcal Infection.—Mr. Brooke has continued his work on the suitability of complement fixation methods for the grouping of streptococci from human and animal infections. Early results are not promising but the experience gained in the general investigation of these organisms should prove invaluable to the laboratory.

INFECTIOUS DISEASE.—EPIDEMIOLOGICAL INVESTIGATIONS.

Diphtheria.—The decrease in the number of positive specimens was not associated with any significant fall in the total number examined.

The centralised typing of all diphtheria strains encountered in the city has continued to justify itself by the more complete epidemiological information obtained. Of the 1,107 strains typed, 973 were from new cases, 447 gravis, 214 intermedius, 194 mitis and 118 atypical. Dr. Carter is shortly publishing a paper on the epidemiological trends shown by the incidence of such strains during the past fifteen years. As a result of his work Glasgow has now very complete records extending back to 1932. Such results are essential to any future elucidation of the epidemiological incidence of this disease, and the Glasgow figures are more complete than those of other large cities in the United Kingdom.

Enteric Fever.—The examinations relating to this disease were greatly increased by the occurrence of an outbreak of paratyphoid infection in Lanarkshire. Many of the patients were admitted to Glasgow infectious disease hospitals and specimens from these were examined in this laboratory. In the city itself only sporadic cases were encountered.

Dysentery.—A striking drop in the number of dysentery cases encountered has been noticed throughout the country during the year. This fall is fully reflected in the Glasgow figures. Only 783 positive stools were discovered in contrast with 1,719 last year. This figure includes 80 detected in a small outbreak of of sonne dysentery in a hospital. *B. dysenteriae Sonne* was isolated on 364 occasions, *B. dysenteriae Flexner* on 327 and *B. dysenteriae Newcastle* on 92.

Venereal Diseases.—The anticipated post-war increase in venereal disease, particularly syphilis, has thrown a very considerable strain on the resources of the laboratory. This year's examinations show an increase of 13,117 over 1944, and the difficulty of obtaining sufficient materials for the necessary tests, as well as the very great increase in labour involved, have caused much concern.

Ophthalmia Neonatorum.—The severe form is produced by infection of a baby's eyes with the gonococcus, generally from a mother suffering from acute or latent gonorrhoea. Usually the identification of this organism is achieved by direct microscopic examination of smears taken from the baby's eyes. The use of the gonococcal transport culture method outlined above for specimens from this disease led to an important observation. It was found that a considerable percentage of acute conjunctivitis cases in infants and young children was caused by meningococci and not by gonococci. The meningococcus is microscopically indistinguishable from the gonococcus and its presence, therefore, could only be detected by bacteriological culture methods. The importance of this discovery lies not in any therapeutic benefit that might accrue, but particularly in its human and social aspects. It will be readily realised that the suggestion of venereal infection in a child member of a family circle must cause very considerable distress to the parents concerned, whereas its infection with the meningococcus, an organism fairly common in the human naso-pharynx, though sufficiently serious, will carry no unpleasant implications. A paper describing six cases has been submitted to the *Lancet*.

Leptospirosis.—The laboratory has continued to operate as a recognised centre for the investigation of this disease. During 1946, however, comparatively few examinations were carried out, 50 for Glasgow and 21 for outside authorities.

PUBLIC HEALTH—GENERAL CONTROL.

Antenatal—Rh Tests.—The importance of the Rh blood factor in determining foetal disease or death has been greatly stressed in recent medical publications. The probable importance of this recent discovery led to its application in the systematic examination of all women attending the Corporation Antenatal Clinics. The work is carried out by the Central Laboratory in co-operation with the Maternity and Child Welfare Department and the Regional Blood Transfusion Service. Specimens of blood are obtained from all women in the antenatal period. In the laboratory these samples are tested for the Rh factor. Women who are " Rh negative," who lack the Rh factor, are those who require further investigation and observation. Specimens from these women are then sent to Dr. Wallace, Director of the Blood Transfusion Service, for further investigation. In his laboratory any serum abnormalities which may unfavourably affect the unborn child are detected. It is hoped that with this knowledge the clinicians concerned may be able to take suitable steps to protect mother and child. This new investigation is likely to produce a considerable amount of extra work for the laboratory. Since its introduction in November, 2,150 specimens have been examined.

Milk Supply.—The number of samples tested biologically for tubercle bacilli was 865. Tubercle bacilli were detected in the city milk supply in 3·1 per cent. of 354 undesignated samples, and in 1·2 per cent. of 82 designated samples. The hospital milk supplies and the pasteurised milk issued to schools were free from such infection in 196 samples and 118 samples respectively examined. From other Local Authorities 104 milks were received, one of which was tuberculous.

The milk supplies of the city, as well as those sent to schools—915 samples in all—were on the whole similar in bacterial content to those of the previous year. The results found with hospital supplies (294 samples) and with graded milks (922 samples) examined for the Health Department were also similar to those reported for the year 1945.

City Water Supply.—556 samples from the reservoirs and other sources were examined during the year, and reported upon to the Health and Water Departments.

Public Baths Water.—The results of examination of 258 samples from thirteen swimming ponds were reported to the Baths Department, providing information upon the effects of filtration and chemical treatment.

PUBLICATIONS.

Microbic Dissociation in C. diphtheriae by the Production of Daughter Colonies. H. S. Carter. 1946. J. Path. Bact. 68. 391.

Canine Leptospirosis in Glasgow. R. D. Stuart. 1946. Vet. Rec. 58. 131.

The Diagnosis and Control of Gonorrhoea by Bacteriological Culture. R. D. Stuart. 1946. Glas. med. J. 27. 131.

Leptospirosis canicola: a case treated with Penicillin. M. D. Baber and R. D. Stuart. 1946. Lancet *II*. 594.

The Preparation and Use of a simple Culture Medium for Leptospirae. R. D Stuart. 1946. J. Path. Bact. 68. 343.

SUMMARY OF EXAMINATIONS FOR THE YEAR 1946.

CITY OF GLASGOW. INFECTIOUS DISEASES.

		Positive	*Total*
Diphtheria and General Throat Infections—			
Diphtheria	Suspects	656	10,181
	Control	1,107	3,586
	Typing	...	1,107
	Virulence	...	193
Streptococcal Infections	Suspects	109	393
Gastro-Intestinal Infections—			
Enteric Fever	Suspects	31	704
	Control	222	1,108
	Lanarkshire Outbreak	140	513
Food Poisoning	Foodstuffs	...	33
	Specimens from patients	...	85
	Shellfish	...	15
Dysentery—			
Bacillary	Suspects	532	3,503
	Control	251	1,864
Amoebic	...	...	84
Other Forms	...	...	26

SUMMARY OF EXAMINATIONS FOR THE YEAR 1946—*Contd.*

CITY OF GLASGOW. INFECTIOUS DISEASES—*Contd.*

		Positive	*Total*
Tuberculosis—			
	Sputa	1,207	5,091
	Other specimens	...	528
Venereal Diseases—			
	Wassermann Test	...	17,319
	Kahn Test	...	21,380
	Gonococcal Smears, Cultures and Complement Fixation	...	2,659
	Colloidal Gold Test	...	62
	Ophthalmia Neonatorum	...	807
Miscellaneous Examinations—			
	Blood ; Rh Factor	...	2,150
	Blood	...	242
	Body Fluids	...	191
	Exudates	...	106
	Excretions	...	14
	Worms	...	3
	Vincent's organisms	...	353
	Trichomoniasis	...	710

CITY OF GLASGOW. GENERAL PUBLIC HEALTH.

City Milk Supplies	2,398
Hospital Milk Supplies	494
Milk bottles, ice cream, etc.	144
Water Supplies	412
Water Department	144
Baths Department	258

PORT HEALTH AUTHORITY.

Anthrax—hides and skins.	From ships, etc.	16
Enteric Fever—" New Holland "		168
Food Poisoning	From ships, etc.	10
Shellfish	do.	3
Miscellaneous	do.	7
Plague—rats	do.	396

H.M. AND ALLIED FORCES.

Venereal Diseases	469
Diphtheria	53
Glandular Fever	21
Tuberculosis	20
Enteric Fever	10
Miscellaneous	19

OUTSIDE AUTHORITIES.

Diphtheria	18
Leptospirosis—Schuffner Tests	21
Dysentery	6
Milks	104
Miscellaneous	11
	80,212

CONTROL.—Specimens from hospital cases, contacts, etc.

SECTION VIII.

FOOD.

Food Infections, Poisons, etc.—From time to time cases of illness associated with the consumption of certain kinds of food, usually canned, are brought to the notice of the Department. Formerly these cases were largely associated with contamination by metals such as tin, lead, copper, etc.

Within recent years however, cases of food infection have been more definitely diagnosed, and some of these are described in the following summarised notes of cases brought to the notice of the Department by reason of the fact that the persons affected were so ill as to require removal to hospital. In other instances patients have been admitted to hospital with an undefined or continued fever, and bacteriological examination of specimens has demonstrated the presence of some toxin, or organism of the food poisoning group. On other occasions the bacteriological results have proved to be negative, but they all involve a considerable amount of investigation by the officers of the Department.

Within three hours of their consuming portions of a Ham Loaf on 25th February, five persons were taken ill with vomiting and diarrhoea and two of them were removed to hospital. The only member of the household unaffected by illness had her portion fried before eating. The remainder of the Ham Loaf and the portion of the six-lb. tin still unsold at the grocer, when bacteriologically examined, showed the presence of coagulase-positive staphylococcus aureus in 1/1,000 gm. In the latter sample the staphylococci were present only in the sliced ready-for-sale portion, but not in the centre of the remaining block of Ham Loaf. The patients' faeces were negative for staphylococci and there was no evidence of illness in any of the shop assistants. No ill effects were reported by any of the other purchasers of this particular Ham Loaf.

Towards the end of March a specimen of faeces from a three-year-old boy in a good class home was found positive for S. Typhi Murium. He had been mildly ill for two days with vomiting and diarrhoea and his stools were still positive five weeks later. The other inmates of the house remained well. During the first half of April the father yielded two negative specimens, but the mother and grandmother each gave a positive specimen, while an infant sister gave two positive specimens with an interval of nine days. The source of this infection was not discovered nor could any foodstuff be reasonably suspected.

An elderly man was admitted to hospital on 1st May as a suspected case of dysentery and B. aertrycke was subsequently found in his faeces. He was in a very filthy and neglected condition on admission and had apparently been suffering from diarrhoea for over a week. He lived alone and was a well-known street character, in the habit of picking up cigarette ends and likely to eat any odd scraps of food he came across.

On the 16th July a four-year-old boy, taken ill with diarrhoea and abdominal pain, was removed to the Sick Children's Hospital as a case of abdominal obstruction. There he was diagnosed as a paratyphoid case and transferred to a Fever Hospital where bacteriological examination of his faeces was positive for an organism of the Salmonella (Newport) Group. On holiday from Liverpool with his parents, he had had several outings to coast and holiday resorts during the week previous and on several occasions had eaten ice-cream and strawberries, all of which, however, had been shared by his parents without ill effect.

A clerkess in a ticket office of a garage sickened on 25th July and was removed to hospital on 7th August as a case of continued fever. Her Widal ultimately proved negative but on 14th August a Salmonella organism of unidentified type was isolated. The patient had all her meals at home and no article of food came under suspicion. On the day prior to her sickening the family had had stew for dinner.

An elderly woman in a good-class home took ill on 7th August and next day began to vomit and have diarrhoea. Clinical recovery took ten days and during this period a specimen of her faeces was positive for S. Typhi Murium. The only food that she had not substantially shared with her husband, who remained well, was said to be a quarter pound of chocolates bought in the city and eaten on

3rd August. No other complaints of illness were associated with this case.

On 28th August a 41 year-old moulder was removed to hospital as a case of continued fever. Investigations for the presence of an enterica group of organisms was negative but bacteriological examination of the faeces revealed the presence of Aertrycke S. Typhi Murium. Enquiries failed to discover the source of infection as all the food taken by the patient had been shared with the rest of his family all of whom remained well.

In October, severe abdominal colic and some diarrhoea developed in three families following the consumption of trifles bought at a local Home Bakery. These had been prepared on 10th October and no case of illness was reported in connection with five dozen sold that day and consumed in the evening at a Church Social. The trifles bought by each of the families were not purchased till the following day and eaten that evening. While the synthetic cream was obtained from a manufacturing agent, the sponge was baked on the premises. These were in a good state of cleanliness with no evidence of presence of flies or rats, and all the bakery employees were in good health. Samples of trifle and of the faeces of two of the patients were negative for Salmonella organisms, but Staphylococcus Aureus was isolated in appreciable numbers from a small portion of trifle.

In three of other nine cases of illness investigated as Food Poisoning outbreaks coagulase positive Staphylococci were considered to be a possible cause. In the absence of essential information, and of material for examination, cause of the illness in the other six instances could not be determined.

Aerated Waters.

A common complaint is that of sickness following the drinking of aerated waters from a bottle which on some previous occasion has been used to hold disinfectant or paraffin. Two instances of this were brought to the notice of the Department during 1946.

Two children of 10 and $1\frac{9}{12}$ years respectively suffered from gastro-intestinal illness following their drinking part of the contents of a bottle of lemonade. Examination of the remaining lemonade revealed an extremely minute trace of phenol, source of which was apparently the screw stopper, the rubber washer of which was badly worn, and which had apparently been used for a bottle holding disinfectant.

After drinking some lemonade, a man alleged that his throat became so inflamed that he required medical treatment. On examination of the remaining liquid it was found to contain phenols to the extent of 9 parts per million parts of lemonade—an amount too minute to have any harmful effect although it would impart an unpleasant flavour to the lemonade. The rubber washer of the stopper had a faint odour of carbolic.

Bottles used for this purpose are very difficult to clean thoroughly, the screw stoppers even more so. The introduction of crown corks which, being perishable, are less convenient for the practice complained of, might prove a solution to this recurring problem.

In the following notes the chief food inspector reports on the administration of the statutory enactments during the year.

SUMMARY OF OPERATIONS UNDER THE FOOD AND DRUGS (ADULTERATION) ACT; THE MILK AND DAIRIES ACTS; AND ALLIED ACTS AND ORDERS FOR THE YEAR ENDED 31ST DECEMBER, 1946.

The Food and Drugs (*Adulteration*) *Act,* 1928.—During the year the duty of obtaining samples of foodstuffs for examination by the City Analyst continued difficult owing to rationing and other causes. A good and representative number of articles were obtained, however, and it gives satisfaction to record that the figures for the year disclose the smallest amount of adulteration, the least number of proceedings instituted, and the fewest convictions for any year. The greater extent of control and the additional legislation regarding manufacture and sale of food are doubtless having a good effect on the food industry. The number of different articles of food examined was 109, which number also includes drugs. A total of 4,122 samples were examined by the Public Analyst; of these 1,245 were formal and 2,877 informal; 35 (2·81 per cent.) of the former and 52 (1·80 per cent.) of the latter were found adulterated. The previous year showed 45 (3·68 per cent.) formal samples not genuine and 44 (2·01 per cent.) informal samples not genuine. The number of proceedings instituted was 27 and 22 convictions were recorded, the penalties imposed amounting to £80. One case concerned the obstruction of an officer in the course of his duty. There were no offences in connection with the sale of margarine. Of the number of cases dealt with during the year, four were second offences, four were third offences and one was a fifth offence.

ABSTRACT OF TOTAL SAMPLES EXAMINED DURING 1946.

Article.	Informal.		Statutory.		Percentage adulterated.		Percentage of Samples taken in each Group to Total.	
	Taken	Non-Gen.	Taken.	Non-Gen.	Infor. %	Stat. %	Infor. %	Stat. %
Milk and Cream	2,108	27	778	7	1·28	0·90	73·27	62·49
Milk Products (Butter, Cheese, etc.)	3	—	35	—	—	—	0·10	2·81
Meats and Meat Food Products	77	6	125	17	7·79	1·36	2·68	10·04
Cereals, etc.	52	—	37	—	—	—	1·81	2·97
Spirituous Liquors ...	10	—	9	4	—	44·44	0·34	0·72
Drugs	161	10	65	4	5·59	6·15	5·60	5·22
Flavourings and Condiments	185	2	40	1	1·08	2·50	6·43	3·22
Miscellaneous Foods ...	281	7	156	2	2·49	1·28	9·77	12·53
	2,877	52	1,245	35	1·80	2·81	100·00	100·00

ABSTRACT OF INFORMAL AND STATUTORY SAMPLES OF SWEET MILK EXAMINED DURING 1946.

Month.	Informal.				Statutory.			
	No. examined.	No. presumed Non-Gen.	Average percentage Composition.		No. examined.	No. presumed Non-Gen.	Average percentage Composition.	
			Fat. %	Non-Fat. %			Fat. %	Non-Fat. %
January ...	175	5	3·68	8·77	69	1	3·65	8·73
February ...	166	2	3·73	8·79	69	3	3·64	8·85
March ...	168	2	3·70	8·73	71	1	3·70	8·86
April	176	3	3·65	8·78	68	—	3·59	8·78
May	182	1	3·61	8·84	65	—	3·54	8·84
June	170	1	3·63	8·90	59	—	3·61	8·99
July	161	5	3·57	8·78	47	—	3·60	8·82
August ...	152	1	3·72	8·73	43	1	3·60	8·76
September ...	190	—	3·95	8·81	54	—	3·93	8·90
October ...	206	3	3·98	8·74	85	—	3·90	8·94
November ...	179	3	3·89	8·78	75	—	3·85	8·85
December ...	181	1	3·84	8·81	73	1	3·88	8·88
	2,106	27 =1·28%	3·74	8·79	778	7 =0·89%	3·71	8·85

Artificial Cream Act, 1929.—There are no manufacturers or dealers in the city registered with the Food and Drugs Authority.

The Public Health (Preservatives, etc., in Food) Regulations.—Thirteen contraventions of these Regulations were dealt with in court compared with fourteen cases last year. The foodstuffs concerned were butchers' mince and sausages. Nine samples of mince were found to contain preservative during the prohibited period, October to May, and one sample of mince was found with an excess of preservative during the permitted summer months, June to September. Of sausages, three samples were found with an excess amount of preservative, The following is a list which shows the foods in which preservatives were found, along with the nature and amount :—

ABSTRACT OF ARTICLES OF FOOD IN WHICH PRESERVATIVES, ETC., WERE FOUND, AND THE NATURE AND AMOUNT, DURING YEAR ENDED 31ST DECEMBER, 1946.

Nature of Article.	Number examined.	Number in which Preservatives, &c., were found.	Nature of Preservative, &c.	Parts per Million.	
				Highest.	Lowest.
Aerated Water ...	9	1	Sulphur Dioxide	64	—
Apricots, Dried ...	1	1	,,	320	—
Beer	5	1	,,	16	—
Gelatine	21	17	,,	614	51
Margarine	33	33	Boron	0·18%	0·09%
Mince	56	23	Sulphur Dioxide	723	38
Sausages	112	80	,,	1,702	12
Stout	3	1	,,	6	—
Sultanas	13	5	,,	332	89
	253	162			

The Milk (Special Designations) Orders (Scotland), 1936-44.—During the year fifty samples of Certified and Tuberculin Tested milk were examined biologically and none was found positive for tubercle bacilli. Twenty-eight samples of Standard milk were also similarly examined and one was found tuberculous. The herd from which this sample came was visited and examined by a veterinary officer of the Ministry of Agriculture and Fisheries ; meanwhile the milk from the offending herd was carefully pasteurised in a pasteurising establishment until all fear of spreading infection had passed. Pasteurising establishments in the city number ten, the same as the year previous. The number of Heat Treatment plants licensed is twelve, an increase of one from last year. The holders of these licenses are paid one halfpenny over the margin per gallon of milk processed. This halfpenny is paid by the Ministry of Food from the time the plant is licensed by the Local Authority. Sampling of this milk is carried out regularly throughout the year and reports of the results are submitted each month to the Department of Health for Scotland. The different grades of designated milk dealt in by dairymen in the city are shown in the following table, along with the average daily quantities sold. The number of producers, dealers, pasteurising, heat treatment and bottling establishments licensed in terms of the Milk (Special Designations) Orders is also included.

	1946.	1945.	1944.
CERTIFIED—			
Producers	1	1	1
Dealers	237	224	217
Total Average Daily Sales (Gallons) ...	1,752	1,211	852
TUBERCULIN TESTED—			
Producers	13	10	7
Bottling Establishments	6	6	6
Dealers	497	476	406
Total Average Daily Sales (Gallons) ...	*2,948	†2,806	‡2,519
STANDARD—			
Producers	13	15	20
Bottling Establishments	—	—	—
Dealers	—	—	—
Total Average Daily Sales (City Producers only) (Gallons)	630	853	1,115
PASTEURISED—			
Pasteurising Establishments	10	10	7
Dealers	548	579	300
Total Average Daily Sales (Gallons) ...	54,357	50,860	42,445
HEAT TREATED—			
Heat Treating Establishments	12	11	—
Total Average Daily Sales (Gallons) ...	34,793	12,289	—

* Includes 695 gallons Tuberculin Tested (Pasteurised).
† ,, 760 ,, ,, ,,
‡ ,, 891 ,, ,, ,,

Samples of the foregoing taken during the year numbered 922. All were submitted to the City Bacteriologist and the City Analyst for examination regarding their conformity with the requirements of the Orders. In the following table the results are set out in detail :—

RESULTS OF EXAMINATIONS OF DESIGNATED MILKS.

	CERTIFIED. (*a*) Not more than 30,000 Bacteria per ml. (*b*) No Coliform Bacillus in 1/10 ml.	TUBERCULIN TESTED. (*a*) Not more than 200,000 Bacteria per ml. (*b*) No Coliform Bacillus in 1/100 ml.	STANDARD. (*a*) Not more than 200,000 Bacteria per ml. (*b*) No Coliform Bacillus in 1/100 ml.
BACTERIOLOGICAL EXAMINATIONS—			
Number examined	100	137	98
Number conforming to all requirements	72	98	75
Number exceeding count only	11	16	13
Number exceeding count and having coliforms present	8	12	7
Number conforming to count but having coliforms present ...	9	11	3
Agar Count per ml. Highest	1,000,000+	1,000,000+	1,000,000+
Agar Count per ml. Lowest	600	500	0
Presence of Coliforms −	83	114	88
Presence of Coliforms + ...	17	23	10
CHEMICAL EXAMINATION—			
Fat Minimum 3% Number 3% or over	98 (one not examined)	135	98
Fat Minimum 3% Number below 3%	1	2	—
Average Butter Fat content	3·91	3·81	4·09

	TUBERCULIN TESTED (PASTEURISED). (*a*) Not more than 30,000 Bacteria per ml. (*b*) No Coliform Bacillus in 1/10 ml. (*c*) Not more than 2·3 Lovibond Blue Units (Phosphatase Test).	PASTEURISED. (*a*) No Coliform Bacillus in 1/100 ml. (*b*) Not more than 2·3 Lovibond Blue Units. (Phosphatase Test).	HEAT TREATED. (*a*) Not more than 2·3 Lovibond Blue Units (Phosphatase Test). (*b*) No decolorisation prior to 12 noon on day following taking of sample.
Number examined	31	268	288
Number passing each Test	26	225	243
Number failing in one or more of the Tests	5	43	45
Milk-Fat Test No, Satisfactory	31	267	287
Milk-Fat Test No. Unsatisfactory	—	1	1
Average Butter Fat content	3·76	3·70	3·68

The tables show that 77·55 per cent. of the samples examined were in compliance with the required standards, as compared with 70·54 per cent. last year. Chemical examination showed all except five samples, which were slightly deficient in fat, to consist of genuine milk.

Supplies of Designated Milk to Corporation Hospitals, etc.—Tuberculin Tested and Pasteurised milk only is supplied to Corporation hospitals and institutions. This milk is provided by the Corporation's own farms, by various producers, and by some milk contractors. The approximate average amount delivered daily was 2,215 gallons. Of this, 1,526 gallons were Tuberculin Tested and 688 gallons were Pasteurised. Two hundred and forty-seven samples of Tuberculin Tested milk were examined by the plate count, and 161 were found to conform with the Regulations. This shows a percentage of 65, which is 5 per cent. lower than last year. Of 49 samples of Pasteurised milk, 32 were found satisfactory. One hundred and eighty-three samples of Tuberculin Tested and Pasteurised milk were examined for the presence of tubercle, and two were found positive. In addition, 460 samples were chemically examined, and three were found to be below the standard set by the Sale of Milk Regulations. The average fat content of the milk samples was found to be 3·87 per cent.

Examination of Ordinary Market Milk for the Presence of Tubercle.—Producers' milk arriving at the city dairies is sampled regularly and submitted to the City Bacteriologist for biological examination. In the course of the year, 291 samples were examined and eight found to be tuberculous, giving a percentage of 2·75 as against a percentage of 1·30 in the previous year. Though slightly higher than last year, this is a satisfactory figure and shows that the eradication of tuberculosis among dairy herds is making good progress. In addition, the quantity of Tuberculin Tested milk coming to the city is increasing. The following table gives the figures for the year, along with the figures of the two previous years, and also shows the county in which the milk was produced :—

SAMPLES OF PRODUCERS' SUPPLIES

EXAMINED FOR THE PRESENCE OF TUBERCLE.

County.	1946		1945		1944	
	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous.	No. Examined.	No. Tuberculous
Ayr	141	3	230	2	158	2
Dunbarton	6	1	—	—	12	1
Glasgow	—	—	—	—	1	—
Lanark	83	—	33	1	85	5
Renfrew	47	2	36	1	14	—
Stirling	14	2	9	—	37	3
	291	8	308	4	307	11

Bacterial Counts of Ordinary Market Milk supplied to the City.—Three hundred and thirty samples were examined for the number of bacteria and the presence of coliform bacillus. The results are shown in the following table :—

BACTERIAL COUNTS OF ORDINARY MARKET MILK SUPPLIED TO THE CITY.

Number Examined.	Average number of Bacteria per ml.					Coliforms in 1/100 ml. (2 days).	
	Under 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	−	+
330	222	24	28	18	38	275	55

Viewed from the number of bacteria found, 156 (70·27 per cent.) of the 222 samples with less than 100,000 bacteria per millilitre were of certified quality, compared with 155 (67·39 per cent.) of the 230 with less than 100,000 in 1945. Two hundred and forty-six (74·55 per cent.) of the total number of samples taken were equal to Tuberculin Tested quality, compared with 270 (77·14 per cent.) in 1945. Coliforms were absent in 275 (88·33 per cent.), compared with 270 (77·14 per cent.) in 1945. The 330 samples were also submitted for chemical analysis ; 13 were found low in non-fatty solids. The average fat and non-fat content of the samples was 3·76 and 8·82 per cent. respectively.

Raw Milk as Retailed in the City.—Eighty-one samples of raw milk as retailed were taken from shops and carts in the city. None of 22 was found positive for tubercle bacilli compared with one of 27 (3·70 per cent.) last year. Adverse results when received are communicated to the Medical Officers of Health of the districts where the milk was produced, and steps are taken meanwhile to prevent the sale of any infected milk. This raw milk, supplied usually by wholesale and retail producers, decreases in quantity each year.

All the samples were examined for the number of bacteria and the presence of coliforms. Results are detailed in the following table :—

BACTERIAL COUNTS OF RAW (UNTREATED) MILK AS RETAILED IN THE CITY.

Number Examined.	Average number of Bacteria per ml.						Coliforms in 1/100 ml. (2 days).	
	Under 30,000	30,000 to 100,000	100,000 to 200,000	200,000 to 500,000	500,000 to 1,000,000	Over 1,000,000	−	+
81	45	24	3	4	2	3	70	11

Milk to School Children.—Only milk of pasteurised quality is supplied to the schools. The milk is supplied by four contractors and is sampled regularly. One hundred and ninety-two samples were examined during the year in terms of the Milk (Special Designations) Orders. Sixty-five of 192, equal to 33·85 per cent., failed to pass the test which is a very exacting one.

Below is shown a table giving a summary of results of the sampling. Another table shows the average daily quantity supplied, computed on a monthly basis, along with the number of school days which occurred in each month.

School Milk, 1946 (Pasteurised).

No. Examined	No. passing both Phosphatase and Coliform Tests.	No. failing Phosphatase Test only.	No. failing Coliforms Test only.	No. failing both.	No. Tuberculous.	Average Fat Solids.	Average Non-Fat Solids.
192	127	15	46	4	—	3·73	8·77

Average Daily Quantities Supplied.

Month.	Gallons.	School Days.	Month.	Gallons.	School Days.
January	5,052	17	July	72	16
February	5,281	20	August	1,047	19
March	5,268	25	September	6,139	20
April	5,598	13	October	6,085	23
May	5,520	24	November	6,039	20
June	5,322	19	December	5,285	20

Milk Summary.—It is satisfactory to report a continuing improvement in the manner in which the dairies in the city are being conducted. Supplies of new dairy machinery are still slow in coming forward, and some dairymen have been waiting now for nearly two years for new plant. Where new appliances have been installed, the improvement has been marked. Three new licences have been granted to producers for the production of tuberculin tested milk, and one additional licence has been issued to heat treat milk. Fully 90 per cent. of the city milk is now either pasteurised or heat treated. Apart from ordinary milk there are seven designations under which milk can be sold. This is confusing to the public, and the number of designations might well be reduced. Two hundred and ninety-one samples of milk taken on arrival at city creameries were examined for tubercle and eight were found positive. This is equal to 2·7 per cent., and is slightly higher than the figure for last year, which was 1·30 per cent., the lowest on record.

Milk supplied under the School Milk Scheme totalled 56,708 gallons. This milk is all pasteurised and is regularly sampled. No sample was found tuberculous, and the fat content averaged 3·73 per cent.

The case where the name of one of the larger city dairies was removed from the register by the local authority has at last been finally dealt with. After proof was led before the Sheriff, the appellant's appeal was rejected, and authority was granted to the Corporation to delete the name from the dairy register. Another dairy company's case at present before the Sheriff is pending.

The estimated daily consumption of milk in the city is 91,450 gallons in the winter months, increasing to over 101,450 gallons in summer.

Inspection of Food and Food Premises.—9,905 inspections of markets, stores, shops and places where food is dealt with were carried out. 2,339 lots of food were submitted for reconditioning, passed as suitable only for animal food or destroyed. The total quantity equalled 145 tons 2 cwts, and consisted chiefly of canned foods, as follows :—meat, milk, fish, vegetables and fruit ; also fresh vegetables, cereals, biscuits, dried fruit and other miscellaneous articles. Food premises in general were found in a satisfactory condition. A quantity of unsound tomatoes were seized while being exposed for sale in the street by a hawker. The tomatoes were condemned by a Magistrate and the hawker was fined the sum of £5.

In connection with the Public Health (Meat) Regulations (Scotland), 1932, ten renewals of registration were granted and certificates of approval issued in respect of them. Thirty-eight copies of certificates were provided for vehicles operating from these premises.

Fertilisers and Feeding Stuffs Acts, 1926.—Nineteen samples of feeding stuffs and three samples of fertilisers were procured during the year and submitted to the Agricultural Analyst for examination. One sample was found deficient in protein and to have an excess of fibre. This was taken up with the suppliers. All other samples were reported upon as conforming with the terms of the Act. No request was received during the year for any sample to be taken. All results have been duly reported to the Department of Agriculture for Scotland.

Dairies.—Dairies on the register at the end of the year numbered 1,445 compared with 1,466 last year. This is a decrease of 21. This number consists of the following :—49 producers, 16 wholesalers, 46 wholesale and retail dealers, 561 retailers of loose milk, 765 retailers of bottled milk only, and 8 carts from without the district. A qualified certificate of registration is granted where milk is supplied only in properly capped and sealed bottles as received from the wholesaler. This certificate is granted where the shop does not fully satisfy the terms of the dairy bye-laws. The percentage of these dairies is 52·93 of the total number registered, compared with 49·90 per cent. in 1945. During the year 15,957 inspections were made of dairies and 66 contraventions were dealt with. In 77 instances repairs and alterations were carried out as requested. One large wholesale dairy was removed from the register after failing in an appeal to the Sheriff, and another large wholesaler's appeal to the Sheriff in connection with removal from the register is still pending.

Two dairy firms were fined a total of £9 for failing to keep dairy appliances clean, and another firm was fined £2 for permitting persons to sit upon vessels containing milk while in course of transport. These were contraventions of the dairy bye-laws. There were no proceedings taken under the Milk and Dairies (Scotland) Order, 1934, the terms of which were generally well complied with.

Byres.—There are 49 producers in the city having 58 byres. Four hundred and seventy-seven inspections were made of these byres, which were found to be generally well kept. Repairs were carried out in six instances and five contraventions of the bye-laws corrected. There is provision for 1,467 cows in the byres and the average number kept is 1,239. Only in one instance are no grazing facilities provided for the herd.

Exempted Persons.—There are two byres in the city where persons keep cows for their own use. The number kept averages three. In addition, the Public Health Department have two attested herds within the city, the number approximating 455 animals. Milk is produced for use in Corporation institutions only. All these byres are regularly supervised and found to be well kept.

Food and Drugs (*Adulteration*) *Act*, 1928, *Section* 8—*Registration of Butter Factories and Wholesale Dealers in Margarine, etc.*—Seventeen butter factories, 133 wholesale dealers in margarine, and one margarine factory are on the register. Visits were paid to these premises in the course of the year, and no contravention was found. Samples taken were reported upon satisfactorily by the City Analyst. Details of the number on the register at the end of the year are as follows :—

Margarine Factories...	1
Wholesale Dealers in Margarine	133
Factories of or Wholesale Dealers in Milk Blended Butter	—
Butter Factories	17

Ice-Cream Shops.—The number of persons on the register of ice-cream dealers in the city at the end of the year was 438, which is 11 more than the number for the previous year. Three thousand two hundred and six inspections were made of these premises, as a result of which repairs were carried out in 13 instances and 10 contraventions were corrected.

New regulations for the heat treatment and better handling of ice cream are in course of preparation, and are expected to be in operation during the summer of 1947. These regulations should mark a great improvement in the care at present exercised in preparing this popular delicacy for consumption.

Cleansing of Milk Bottles.—The washing and sterilising of milk bottles is an important feature in the production of milk for sale, and the improper cleansing of bottles is a cause of the failure of bottled milk to pass the tests required by the Milk Special Designations Orders, and also a cause of early souring. To ascertain the condition of sterility in washed bottles, 67 were procured during the year from the large and from the smaller dairies. The standard of examination adopted was that which fixes a maximum of 600 organisms per pint bottle. Of the 67 bottles examined, 47 were found satisfactory and 20 unsatisfactory. Intimation was made in each case when an unsatisfactory report was received from the Bacteriologist. The designs of bottle-washing machines in generally use in the larger dairies are the soaker-sprayer and jet types, while the methods employed in the smaller establishments are washing by means of rotary brushes and by hand brushes. The results found by the different methods are as follows :—

	Number	*Satis- factory*	*Unsatis- factory*	*Percentage Satis- factory*
Washed by Soaker Sprayer Type Machine	10	7	3	70
Washed by Jet Type Machine	38	30	8	79
Washed by Rotary Brushes	9	4	5	44
Washed by Hand Brushes	10	3	7	30

These figures disclose again this year the poorer results obtained from washing by rotary and hand brushes.

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Details of Samples, etc., in which Proceedings were instituted during 1946.

Number of complaints.	Nature of sample and alleged offence.	Number of convictions.	Amount of fines imposed.	Number dismissed or found "not Proven."	Number deserted simpliciter.
2	Milk—Deficient in milk fat ...	1	£5	—	1
4	Milk—Deficient in solids other than fat	2	£8	1	1
3	Sausages — Contained an excess of preservative ...	3	£16	—	—
9	Mince — Contained preservatives during prescribed period	9	£24	—	—
1	Mince — Contained excess of preservative	1	£4	—	—
4	Whisky — Contained an excess of water	4	£7	—	—
1	Camphorated Oil — Deficient in camphor	1	£5	—	—
1	Baking Powder — Deficient in available carbon dioxide ...	1	£1	—	—
1	Tincture of Iodine—Contained no potassium iodide ...	1	£5	—	—
1	Obstructing officer in execution of his duty ...	1	£5	—	—
27		24	£80	1	2

ABSTRACT OF PROCEEDINGS UNDER OTHER THAN FOOD AND DRUGS (ADULTERATION) ACT DURING 1946.

Act, Order, &c.	Nature of Offence	No. of Complaints	No. of Convictions	Amount of Fines Imposed	No. dismissed found "Not Proven" or deserted Simpliciter
Glasgow Dairy Bye-laws.	Failing to keep appliances used in connection with dairy clean, etc.	2	2	£9	—
Do.	Permitting people to sit upon milk vessels containing milk while being conveyed in lorry.	1	1	£2	—
Glasgow Police (Amendment) Act, 1890.	Exposing for sale unsound tomatoes.	1	1	£5	—
		4	4	£16	—

SPECIAL SANITARY OPERATIONS.

(a) FOOD AND DRUGS, ETC.—	1942.	1943.	1944.	1945.	1946.
I.—*Dairies*—					
Registered during year	—	55	143	103	160
Removed from Register	—	79	227	110	182
On Register at 31stDec.	1,582	1,558	1,474	1,467	1,445
No. of Inspections ...	17,586	17,529	15,829	15,719	15,957
Contraventions of Orders, Acts, or Bye-laws ...	19	22	55	54	65
Prosecutions for same	1	11	6	4	5
Repairs or improvements effected	44	28	83	91	75
II.—*Dealers in Ice-Cream*—					
Registered during year	—	2	—	94	52
Removed from Register	—	2	1	118	41
On Register at 31st Dec.	452	452	451	427	438
No. of Inspections ...	4,421	1,951	1,144	3,103	3,206
Contraventions of Acts, Orders, or Bye-laws ...	1	—	—	5	11
Prosecutions for same	—	—	—	1	—
Repairs or improvements effected	1	—	—	18	14
III.—*Byres for Milch Cows*—					
No. of Dairy Byres as at 31st December ...	70	69	64	64	58
No. of Cows licensed for	1,798	1,792	1,665	1,665	1,467
Average No. kept ...	1,574	1,565	1,576	1,571	1,239
No. of Inspections ...	444	473	538	425	477
IV.—*Unwholesome Food*—					
No. of Inspections ...	11,564	12,053	10,468	10,026	9,905
No. of Lots dealt with	1,845	2,001	2,075	2,308	2,339
Nature of Food destroyed at Inspector's instance with Owner's consent—					
Assorted foodstuffs ...	114 tons 14 cwts.	99 tons 6 cwts. 41 lbs.	180 tons 17 cwts.	221 tons 6 cwts.	145 tons 2 cwts.
V.—*Food and Drugs (Adulteration) Act*—					
Informal samples analysed	2,165	2,079	2,098	2,183	2,877
Statutory samples analysed	1,156	1,284	1,251	1,241	1,245
Statutory samples found non-genuine	61	41	36	45	35
Proceedings instituted	52	31	28	39	27
No. of convictions ...	40	31	25	33	22
Amount of fines imposed	£106 8s.	£110	£103	£124	£80
No. dismissed or found "Not proven" ...	7	—	—	—	1
No. deserted simpliciter	5	—	2	6	2
Warranty Defence Sustained...	—	—	1	—	—
No. pending	—	—	—	—	—
No. withdrawn ...	—	—	—	—	—
No. dismissed (first offenders)	—	—	—	—	2

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928.

Table showing Nature and Number of Total Samples Procured and Examined during 1946.

Nature of Sample.	Informal.		Statutory.	
	No. Taken.	No. Non-genuine.	No. Taken.	No. Non-genuine.
Aerated and Mineral Waters	18	—	—	—
Apricots	—	—	1	—
Arrowroot	1	—	—	—
Aspirin	7	—	—	—
Baking Powders	28	4	12	1
Barley	4	—	3	—
Barley Flour	2	—	—	—
Barlicream	1	—	—	—
Beer	5	—	—	—
Beetroot, pickled	1	—	—	—
Bicarbonate of Soda	16	—	7	—
Boracic Acid Powder	2	—	1	—
Borax	10	—	2	—
Borax with Honey	1	1	—	—
Bovril	1	—	—	—
Brose Meal	2	—	—	—
Butter	3	—	27	—
Cake Mixture	1	—	—	—
Cascara Sagrada	10	1	1	—
Cheese	—	—	8	—
Cinnamon	21	—	7	—
Cloves	6	1	—	—
Cocoa	20	—	6	—
Coffee	17	1	15	—
Coffee Essence with Chicory	8	—	—	—
Cooking Fat	—	—	12	—
Cream of Magnesia	1	—	—	—
Cream of Tartar	15	—	13	—
Currants	3	—	7	—
Curry Powders	16	—	2	—
Custard Powders	4	—	3	—
Cider	2	—	—	—
Dates	2	—	2	—
Egg, dried	1	—	1	—
Essence of Rennet	4	—	—	—
Figs	2	1	4	—
Fish Cakes	2	—	—	—
Fish Dressing	5	—	2	—
Fish Paste	8	—	—	—
Flake Meal	1	—	1	—
Flavourings	1	—	—	—
Flour, S.R. and ordinary	8	—	15	—
Flowers of Sulphur	4	—	2	—
Frizets	1	—	1	—
Gelatine	12	—	9	—
Ginger	28	—	7	—
Glycerine	7	—	—	—
Gravies and Gravy Powders	7	—	—	—
Gravy Salt	2	—	—	—
Gregory's Mixture	6	1	6	—
Ice Cream	72	—	—	—
Icing Sugar	—	—	2	—
Iodine Paint	1	—	—	—
Junket Powder	3	—	—	—
Junket Rennet	1	—	—	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928—*Contd.*

Table showing Nature and Number of Total Samples Procured and Examined during 1946—*Contd.*

Nature of Sample,	Informal.		Statutory.	
	No. Taken	No. Non-genuine.	No. Taken.	No. Non-genuine.
Lard	2	—	16	1
Liquorice Powder	—	—	1	—
Luncheon Meat	—	—	1	—
Lysol	1	—	—	—
Macaroni	7	—	3	—
Margarine	2	—	31	—
Margarine, Kosher	—	—	1	—
Marmite	1	—	—	—
Meat Cubes	1	—	—	—
Meat Pastes	14	—	—	—
Milk, sweet	2,108	27	778	7
Mince	8	4	48	14
Mincemeat	5	—	—	—
Mint, dried	1	—	—	—
Mustard	7	—	1	—
Mustard Compounds	12	—	2	—
Nutmegs	10	—	1	—
Oatmeal	5	—	1	—
Oat Flour	1	—	—	—
Oil, almond	1	—	—	—
Oil, camphorated	9	—	4	1
Oil, castor	9	—	—	—
Oil, eucalyptus	3	—	—	—
Oil, olive	1	—	—	—
Ointments, medicinal	26	3	2	—
Parsley, dried	1	—	—	—
Pease Meal	3	—	1	—
Peppers	27	—	17	—
Pepper Condiment	2	—	—	—
Petroleum Jelly	1	—	—	—
Piccalilli	1	—	—	—
Potato Crisps	1	—	—	—
Prunes	6	—	9	—
Pudding Mixture	7	—	3	—
Raisins	5	—	8	—
Red Cabbage	1	—	—	—
Sage	4	—	—	—
Sage and Onion Stuffing	2	—	—	—
Salad Dressing	1	—	—	—
Salts, medicinal	22	2	16	—
Sauces	29	—	—	—
Sausages	44	2	68	3
Scone Mixture	3	—	—	—
Seidlitz Powders	2	2	2	2
Semolina	16	—	10	—
Shortbread Mixture	1	—	—	—
Soups and Soup Powders	17	—	1	—
Soya Flour	4	—	3	—
Spaghetti	1	—	1	—
Spices	9	—	—	—
Sponge Puddings	1	—	—	—
Stout	3	—	—	—

THE FOOD AND DRUGS (ADULTERATION) ACT, 1928—*Contd.*

Table showing Nature and Number of Total Samples Procured and Examined during 1946

Nature of Sample.	Informal. No. Taken.	Informal. No. Non-genuine.	Statutory. No. Taken.	Statutory. No. Non-genuine.
Suet	4	—	9	—
Sugar	—	—	1	—
Sultanas	4	—	9	—
Tincture of Iodine	6	1	6	1
Vinegars	10	1	3	1
Whisky	—	—	9	4
Yeast, dried	1	—	—	—
	2,877	52	1,245	35

SECTION IX.

AIR PURIFICATION AND SMOKE ABATEMENT.

In the reports in this section for the past two years the fact was stressed that owing to the many distractions and exigencies of the war period the public attitude towards smoke abatement had considerably changed, and that a general apathy towards the subject, it was feared, had taken the place of the more active collaboration that had been built up during the pre-war period. There is definite evidence that such an apathetic attitude is passing. The first evidence of this is that there is much less inclination to submit to annoyance from local smoke nuisance and this is amply confirmed by the large number of alleged smoke complaints reaching the Department through the medium of letter, personal call, and telephone. Both larger and smaller chimneys are now the subject of such complaints.

Again it has been very evident during the year that Local Authorities and various associations are being stirred with regard to the subject. In the press and on platform the utterances and announcements in connection with atmospheric pollution are now of greater frequency and even the " letter to the editor " contributor is not behind. In the normal public health and specialised sanitary operations greater attention is being devoted to the subject of smoke abatement. The annual Conference of the National Smoke Abatement Society held in Brighton during October, was one of the largest there has been, and the interest shown in the discussion periods by all sections representing Local Authorities, industry and private individuals was very marked indeed.

Again, the recent Conference at Falkirk under the auspices of the Scottish Division of the Society was one of the largest ever attended north of the border and there again active interest was more than revived as compared with pre-war activity.

On all sides, from Government pronouncements downwards, special attention is also being directed to the domestic aspect of the problem. In town planning, housing and housing development the necessity for smoke abatement is now specifically decided upon and many directives are being made to ensure the fulfilment of a short term policy of smoke abolition.

Conditions in the fuel field are very stringent and are likely to be so for years to come. This is a fact that cannot be overlooked and this state of affairs will obtain until the whole of the coal industry, both productive and distributive, has undergone the reorganisation that is now in progress. " Waste not, want not " must be the guiding principle in the years that lie ahead and " waste not " must definitely include the efficient use of all types of fuel so that only the minimum of smoke production is permitted or tolerated. Smoke abatement and fuel efficiency go hand in hand, in fact they are almost synonymous terms. The interest of fuel economists and smoke abaters are identical.

With both of these aims in view a new procedure in research work has been established and attention is being directed to the provision of suitable and approved domestic appliances to an extent that has never before been attempted. It could be said that the whole body politic realises that from an environmental and economic point of view smoke abatement and smoke pollution are of major importance.

During the war years and until the end of 1945, the very reduced staff could only engage in the abatement of local nuisances caused by smoke and grit emissions. Active smoke abatement work was at a low ebb, the remaining staff being mostly engaged with other technical duties. The return of service personnel together with the addition of an extra inspector filling a previous vacancy has made more active practical smoke abatement work possible. This is in addition to the many complaints handled during the year. The following represents the routine work done :—

Observations on chimneys	12,042
Inspections of steam boiler and other furnaces ...	377
Intimations of excess smoke given	329

This routine work includes visits paid to and inspections made of plants coming within the smaller and the larger categories in so far as size and importance are concerned, and is representative of almost every type of industry. Operations within the city bounderies again include shipping in the harbour areas. It was anticipated that recommencement of this work would probably encounter a marked resentment by the firms concerned, but this has not been the case. The advice given in the great majority of instances has been acceptable to the plant users concerned and they have made a definite effort to comply with the regulations and to employ the advice given so far as it lay within their power.

During the routine work it was very obvious to the inspectorate that the changes in the operational staff of the concerns involved meant that a considerable amount of new educational work would have to be undertaken. During the war years many young men and others who previously had no knowledge of stoking or plant conditions were recruited ; while on the other hand many of the older experienced men had either gone on service, engaged in various types of work or retired.

This aspect of change was noted in last year's report and it is again made mention of because it is doubtless a contributory factor in the amount of excessive smoke being recorded.

The fuel position both industrial and domestic is a matter of common knowledge and certainly individual experience. The shortage is acute and almost every user is experiencing difficulty in this connection. This is especially so in the case of mechanically stoked plants. Such plants as these are ideal so far as smoke emission is concerned, but most of them are very sensitive when the fuel conditions are upset, both as regards types and grades. All varieties are strictly rationed and directed, and it is only in the most inferior qualities of ungraded fuels, such as nondescript dross, that there is any volume available, more or less *ad lib.* When such fuels are used for hand stoking, heavy smoke is invariably the result. Most plants nowadays are working on full load capacity. Thus the position becomes aggravated.

During the war many alterations and additions were made to existing plants where such plants were in use in connection with very essential industries, while many new plants came into being. Almost all of these newer plants are requiring overhaul, while the previously older plants which did not come within these categories require even more attention. The repair work necessary includes repointing or rebuilding of settings, renewal of dampers, repairs to or alterations in arrangements of flues, repair or building of chimneys, etc. All of this work involves considerable labour and material. It will take time.

Many programmes of new plant have been decided upon involving from the smallest to the largest lay-outs, and some are already in process of construction. This is especially so in the mechanical stoking field and many improvements on the older and well-tried makes are being given effect to. Some new types are coming on the market. Attention is also being directed in many instances to the provision of mechanical grit arrestors—so very necessary in many cases.

SOOT AND ATMOSPHERIC PRECIPITATION GAUGES.

The monthly soot and dust fall recordings from the five precipitation gauges throughout the city and, in addition, the two check gauges maintained outwith the city bounderies, were continued without interruption during the year. The following summarises the information which in pre-war years was published in greater detail :—

DEPOSIT OF EACH ELEMENT OF ATMOSPHERIC POLLUTION FOR 1945-1946.

	Tons per Square Mile. 1945.	Tons per Square Mile. 1946.
Insoluble Matter—		
Tar	3·27	3·47
Carbonaceous other than Tar	47·46	44·76
Ash	106·42	98·36
Total Insoluble Matter	157·15	146·59
Total Soluble Matter	92·09	82·44
Total Solids	249·24	229·09
Rainfall in Millimetres	982·25	893·69

During 1945 the average weight in tons per square mile of solid deposit was 0·254 per millimetre of rainfall. During 1946 this figure is represented by 0·255, which is an increase for the year of 0·001. The average yearly total precipation for the six years 1940 to 1945 amounted to 252·36 tons per square mile. The corresponding figure for the present year as stated above is 229·09. This shows a reduction of 9·2 per cent. over the six year period. The average monthly rainfall during the winter period (October-March), was 74·80 millimetres, while the corresponding figure for the summer period (April-September), was 74·14 millimetres. The average monthly deposit during the winter period was 21·88 tons per square mile, while the figure for the summer period was 16·29 tons. The total annual rainfall as shown by the gauges during the year was 893·69 millimetres. The corresponding figure for 1945 was 982·25 millimetres. Again the corresponding total solid precipitations are 229·09 and 249·24. This shows both a drop in annual rainfall and precipitation. This direct result does not always obtain. Sometimes an increase in rainfall gives a reduced precipitation and vice versa. It has been frequently mentioned in these reports that the incidence of the rainfall has a direct bearing on the weight of precipitation. " Showery " weather at intervals will have a greater washing effect on the atmosphere than long periods of continuous downpour.

CLASS IN BOILER HOUSE PRACTICE AND FUEL ECONOMY.

During the winter of 1946/1947 the usual course in the above subject was carried on. This was the 31st annual session. The personnel of the class was composed of stokers, boiler attendants, engineers, chemists and others actively interested either in the burning of fuel or in fuel supplies. The class was as usual held under the joint aegis of the Scottish Branch of the National Smoke Abatement Society, the Corporation of Glasgow, and the Scottish Regional Fuel Efficiency Committee of the Ministry of Fuel and Power. A combined ordinary and advanced class was commenced on Tuesday evening, 1st October, 1946. The venue was again the Burgh Court Hall, Municipal Buildings, and thereafter met each Tuesday evening between 7-45 and 9-15 p.m. The course finished on 7th January, 1947. The total enrolment was 89. Of this number, 63 were ordinary and 26 advanced. The average attendance over the session was 67·5 per cent in the ordinary class and 80 per cent in the advanced class respectively, giving a combined average of 73·7 per cent. A total of 13 lectures was given and, in addition, 2 further refresher lectures of two hours each were delivered during April to intending candidates for the City and Guilds of London Institute examination in Boiler House Practice. Twenty-one candidates stated their intention of going forward to this examination this year. Forty-three men came forward at the end of the session to the written class examination, 30 taking the ordinary and 13 the advanced question papers respectively. The examination in each grade is a written one. Sixty per cent. or over is the standard qualifying for a merit certificate and, as has been the practice, only bona fide stokers, boilers attendants, or men of similar status attaining 70 per cent. or over, are eligible for competing for the book prizes allocated to each class. Thirteen men of the advanced and 22 of the ordinary class gained merit certificates. Last year a member of the class gained the silver medal in combustion engineering as a result of examination under the City and Guilds of London Institute. This is the second occasion within the past two years that the silver medal for the whole country has come to the Glasgow centre. Two years ago a candidate from the Glasgow region gained a similar distinction in boiler house practice.

SECTION X.

GENERAL SANITARY ADMINISTRATION.

Any hopes that might have been entertained that the administrative and other difficulties encountered during and since the war would be overcome during the first full year of peace were soon dissipated. The continuance of controls and restrictions, recurring shortages of building materials, and continued shortage of staff combined to prevent any appreciable progress towards those higher standards of hygiene and environment which are so urgently required. Nevertheless, as will be seen from the detailed figures in Table XVII, a great volume of work was dealt with and the sanitary administration of the City well maintained.

Nuisances.—The work of nuisance detection and removal is the keystone of all sanitary administration. It is generally unspectacular but often gives rise to problems which call for much investigation and technical knowledge in their solution. Usually the cause of chokage can be readily removed but there are instances, and these are by no means uncommon, which require the exposure of the drain for this purpose entailing much labour and expense. One such case, involving three tenements of dwelling-houses in a working-class locality, can be cited. Following on recurring chokages the common drain was exposed on the sewer side of the intercepting trap when it was ascertained that the obstruction was at a faulty sewer connection on the other side of the roadway which carried tram lines. A new connection at another point in the sewer was decided upon, necessitating tunnelling partly through rock across the roadway. The operations occupied more than four weeks and meantime to avoid flooding of the tunnel from the existing drain the water was cut off from the houses and a supply made available at a stand pipe on the footpath.

As usual, choked and defective drains and sanitary fittings formed the bulk of the nuisances dealt with. This will continue to be so until the water closet used in common has become a thing of the past.

The inevitable deterioration of house property, due to the lack of maintenance during the war years, resulted in dampness and disrepair occupying second place on the list of nuisances dealt with. Dry rot and dampness in ground flat houses are also frequent sources of complaint. In two adjoining good-class tenement properties so affected the owners were prepared to close the houses on the ground flat permanently rather than meet the very considerable cost of the repairs called for. Better counsel prevailed, however, and with appropriate treatment of the damp walls, the renewal of all infected timber and the provision of the means for a through current of air under the floors, a cure resulted. It is of interest that in this case the sub-floor ventilating gratings had been cemented over ; this may well have been the cause of the conditions which developed.

Owing to the difficulties enumerated above a considerable delay, as compared with pre-war years, in having nuisances abated was to be expected and did in fact occur. As shortage of one material was overcome another arose and tenants were not always appreciative of the difficulties. Despite this, 65,314 nuisances were removed during the year and visits of inspection totalled 608,519.

Rat Destruction.—The intensified operation of the Rats and Mice (Destruction) Act, 1919, and the Orders of 1943, and 1944, resulted in 21,210 visits being made as compared with 12,405 in the previous year. The close collaboration with the Department of Agriculture in dealing with rat infestation was maintained and valuable results accrued. As a result of the combined operations 23,821 rats were killed. One selected area in the Central Division was systematically " combed " and an estimated total of 2,851 rats destroyed on the surface and in the sewers. An interesting feature of this operation was the high percentage of black or " ship " rats trapped—all in riverside premises.

It cannot be too often emphasised that, where possible, the clearance of premises should be followed immediately by thorough rat-proofing. This is not only good common sense but sound economy. In many of the infestations affecting dwelling-house property the careless habits of many tenants contribute to the infestation. The throwing of vegetable and other refuse from windows and the spillage of such material round ashbins provides readily accessible and attractive feeding for rats.

Factories Act, 1937.—The administration of this Act entailed 18,878 visits of inspection including those to homeworkers. The number of factories, including bakehouses, on the register at the end of the year totalled 6,122 being 170 less than the previous year. The number of nuisances dealt with was 2,926, mostly relating to sanitary conveniences and dirty walls and ceilings of workrooms, etc. In only one case was it found necessary to take Court proceedings, when the occupier of a factory was fined £10 for failure to provide sufficient sanitary conveniences for his employees.

In many factories the sanitary conveniences are subjected to gross misuse by the employees, which leads to chokages and other nuisances.

Towards the end of the year work was in progress on a new industrial estate in the Northern Division. This scheme when completed will make an important addition to the register of Factories.

Shops and Offices.—The administration of the Shops Act, 1934, was largely in abeyance during the war years owing to shortage of staff and the difficulty of enforcing its provisions during the prevailing abnormal conditions. The year under review saw a partial resumption of this work as evidenced by 2,041 visits of inspection ; 400 nuisances of various types were dealt with.

The present Shops Act is under review and new legislation may possibly be forthcoming. The fixing of a definite standard of sanitary conveniences and washing facilities, while admittedly difficult, would be advantageous for those administering the Act.

The survey of premises in connection with rat infestation has been instrumental in bringing to light conditions in shops which require our intervention. The cellars of many shops are too often used as dumps for all kinds of rubbish.

Employees in offices are the only class of worker not covered by health legislation directed to their special requirements. Action to improve conditions in office buildings has to be taken, when necessary, under general public health legislation, which is not in every case flexible enough to meet the circumstances. During the year 275 visits were paid to offices and 29 nuisances dealt with.

Common Lodging-houses.—The number of such houses on the register at the end of the year was 30, including 6 boarding houses for seamen, as compared with 35, including 8 Seamen's boarding houses, the previous year. These premises could provide accommodation for 7,835 persons. 736 visits were made and 53 irregularities dealt with. In no case was Court action necessary.

Despite the manifold difficulties which keepers of such establishments have encountered in regard to the supply of bedding materials, soap, and so on, a reasonably good standard of maintenance has been kept up in the majority of cases. Instances were reported of bug infestation. Every assistance has been given to the keepers of the lodging-houses but even so it has been found necessary to keep a strict supervision over the premises to ensure that the vermin do not become established.

In order to meet rising costs a number of common lodging-houses, including those controlled by the Corporation, have increased their charges beyond the shilling per night permissible under the present law. The effect of this is to remove such places from the definition of common lodging-house and, while supervision is meantime maintained, it is very doubtful if Court action could be taken should contraventions of the bye-laws occur. In order to retain control over these lodging-houses, amendment of the existing law in the direction of an increase in the permissible maximum charge to at least 1/6 per night, would appear to be necessary.

Houses let-in-lodgings and Farmed-out Houses.—There were 200 and 263, respectively, of these types of houses on the register at the end of the year. These figures take no account of the great number of houses which accommodate more than one family. Many of these houses are kept under supervision without being registered, and action is taken, when necessary, for the maintenance of hygienic conditions.

Drainage.—The work of testing the drainage and plumbing systems of new or extended premises expanded greatly during the year as may be seen from the figure of 1942 such tests as compared with 594 in the previous year. The greater part of this expansion was due to the increased provision of new houses, temporary and permanent.

Shortages of traditional plumbing and drainage materials made it necessary to accept alternative materials and to condone many departures from the byelaws in order to prevent holding up work on urgently required houses. The one-pipe system of plumbing which was adopted in 4 inch copper piping in a group of non-traditional type houses is likely to find general favour in such similar cases as are suitable. Consideration must, however, be given to the question of how far such departures can be carried without involving danger to health or the possibility of nuisance arising. In this connection the question of revising the present out-moded drainage bye-laws has become one of some urgency.

Offensive Trades.—Four offensive trades were discontinued during the year, leaving 52 on the register. As a result of the Government concentration scheme introduced in the war years only 39 of these are actually in operation. 691 inspections were made and 26 contraventions of the byelaws discovered. All were remedied without trouble.

New and improved plants have been installed in three factories in Eastern Division and the treatment of effluvia being discharged into the atmosphere through condensers and chlorine towers has shown a marked improvement. The businesses are well conducted, and every effort is made by the management to comply with the requests of this Department, and with the Byelaws in force.

Nuisances arising from flies which are attracted by the nature of the raw material were not so evident as in former years. Further experiments in the use of D.D.T. preparations are being carried out with the co-operation of the occupiers of these premises, and it is confidently expected that a new record of control will be obtained throughout the summer of 1947.

Rats are inevitably attracted by offensive trades and every precaution has to be taken to avoid major infestation. In one instance treatment by the special staff of the Department of Agriculture for Scotland over a period of four weeks resulted in a four-figure kill, and continuous trapping since by the firm's employees has been attended by good results. In this case effective rat-proofing of the premises is not practicable.

Piggeries.—The number of piggeries on the register remained unchanged from the previous year's total of 66. Inspections numbered 271 and 35 nuisances were dealt with. Those situated in areas where sewerage facilities are lacking present drainage problems difficult of satisfactory solution. The experience is that tank treatment of pig wash is seldom effective and that burns and streams become fouled by the effluent during the summer weather.

Rag Flock Acts.—A drop in visitations, from 74 in 1945 to 6 in 1946, reflects the uncertainty regarding legal proceedings under the present law, which, as is well known, is peculiarly unfortunate so far as Scotland is concerned, and frequently results in cases being abandoned after their commencement.

It is highly probable that new legislation will be promoted following the Report of the Inter-Departmental Committee, presided over by Lord Merthyr, published during the year. Should these proposals become law in a form suited to Scottish practice it will give Local Authorities effective control over a subject which has long proved unsatisfactory.

The following is a brief summary of the main conclusions and Recommendations :—

(*a*) There is a definite potential danger to health arising from the use of dirty filling materials.

(*b*) The chlorine standard is not a satisfactory test of cleanliness for rag flock.

(*c*) Present legislation is inadequate to secure proper cleanliness of rag flock.

(*d*) No person should be allowed to sell unclean rag flock intended for use as filling material.

(*e*) The present statutory definition of " flock manufactured from rags " is not sufficiently wide and should be extended.

(*f*) All premises upon which rag flock is manufactured or stored for sale should be registered annually by the Local Authority in whose district the premises are situated and such Local Authorities should have powers to suspend and revoke licences and should satisfy themselves that the premises are furnished with such appliances as are necessary to enable the work to be carried out in accordance with the requirements of the Statute.

(*g*) It is not practicable to detail the washing and sterilising processes to be applied in the manufacture of rag flock.

(*h*) Right of appeal against any decision of the Local Authority should lie with the Secretary of State for Scotland.

(*i*) Manufacturers, wholesale dealers and users of rag flock should be required to keep separate records showing how every consignment handled by them is disposed of.

(*j*) Local Authorities should be required to :—

(1) Inspect all registered premises in their area.

(2) Take samples for analysis.

(3) Inspect unregistered premises in their area in which it is believed that rag flock is being manufactured, used or stored for sale.

(4) Inspect registered premises outside their own district and if necessary institute proceedings provided that the consent of the other Authority is obtained.

(*k*) Authorised officers of a Local Authority should be empowered to enter any registered or unregistered place in which it is believed rag flock is manufactured, used or stored for sale in order to ascertain whether there has been any infringement of the Act.

(*l*) New legislation should specify a date after which any material similar to rag flock found on registered premises will be deemed to be rag flock and will require to satisfy the statutory requirements relating to rag flock.

(*m*) It should be an offence to sell any article of bedding or furniture containing unclean rag flock.

(*n*) The maximum penalties for the manufacture or sale of unclean rag flock should be increased.

Additional recommendations on somewhat similar lines refer to :—

(1) Filling materials other than rag flock ; and

(2) All filling materials.

Samples of rag flock taken from three different firms during 1945 did not conform to the prescribed standard of cleanliness. The sampling officer's notes revealed that each firm had been supplied by the same manufacturer and as each held a warranty as to the cleanliness of the flock, it was considered advisable, in order to save time and to avoid the expense of raising three separate charges, to procure a further sample from yet another firm known to obtain its rag flock from the same source and to proceed, if this sample did not prove satisfactory, against the manufacturer in connection with all four cases.

The City Analyst, while certifying the sample to conform to the standard of cleanliness required by the regulations, added a rider to the effect that the sample contained a considerable amount of extraneous matter, such as a portion of a brass buckle, a broken safety pin and pieces of a hard material, probably broken button, etc., and that the presence of these substances indicated imperfect treatment in the cleansing process. In view of the result of this analysis the charges against the three firms were not proceeded with.

As the factory where the rag flock was manufactured was not situated within the city boundary, a copy of the Analyst's Certificate was sent to the Local Authority concerned.

Air Raid Shelters.—Inspections of such places numbered 89 and resulted in 59 nuisances being dealt with. Many of the street surface shelters were demolished during the year and the sooner those in the back courts of tenement areas are likewise dealt with the better. Many of such structures have become dumping grounds for refuse ; they are often used as public conveniences ; they provide harbourage for rats and often obstruct the surface drainage of courts. From the point of view of public health and amenity their early demolition cannot be too strongly urged.

Tents, Vans, etc.—No trouble was experienced in regard to such structures during the year. Visits totalled 212 and 7 minor irregularities were dealt with. In one case the employee of a certain firm and his wife were found in occupation of an immobilised bus as a dwelling, without the sanction of the Local Authority. The owners of the site and van were at once notified of this contravention of the byelaws and steps were taken immediately to provide alternative accommodation.

Cleansing of Common Closes and Stairs.—As always, the enforcement of the bye-laws for the daily and bi-weekly cleansing of common stairs, etc., continued to absorb a disproportionate amount of the staff's time. 37,420 visits were made in this connection and 10,541 rotation cards served. Prosecution of 18 offenders was found necessary and fines were imposed in every case.

Limewashing, etc., of Walls and Ceilings of Common Closes and Staircases.—This very necessary work, much neglected during the war years owing to strutting of closes, labour shortage, and so on, was greatly intensified during the year as is shown by an increase of almost 10,000 in the number of inspections made. This resulted in 6,217 properties being limewashed and/or painted as compared with 3,280 the previous year. While these figures are satisfactory it cannot be claimed that the pre-war expedition in such cleansing has been recaptured. It was found necessary to proceed against one owner for failure to comply with the law and a modified penalty of 10s. was imposed, he having carried out the work before the case came up for hearing.

Squatters.—The desperate urgency of the housing situation was brought into vivid relief by the outbreak of "squatting" which, originating in England, reached the City in August. The first objectives were disused military camps but, as these became full, latecomers took over all sorts and conditions of property including unoccupied office buildings, a disused hospital, condemned houses, unoccupied villas, and a naval hospital. Many of these premises lacked even the most primitive sanitary services and swift action had to be taken to prevent nuisances arising. Gradually order was restored out of chaos but the work involved threw a heavy burden on the depleted staff. The organisation and supervision found necessary entailed 3,575 visits.

In the course of the year many of the more unsuitable premises were vacated. Those still occupied were kept under supervision in order to maintain reasonable hygienic conditions.

Housing.—The enforced period of quiescence in slum clearance was very slightly disturbed during the year. A total of 26 houses were dealt with by Closing or Demolition Orders under the Housing Acts. The families concerned were rehoused by the Local Authority.

Meanwhile the work of survey and classification of houses in anticipation of the resumption of slum clearance was continued. This entailed 10,707 visits of inspection mostly under the Inspection of District Regulations, 1928.

Rent Restrictions Acts.—The demand for certificates under the Rent Restriction Acts were again considerable. Not all of the applications were inspired by those conditions which the Acts were designed to cover but all were dealt with impartially. Applications numbered 315, of which 193 were granted and 122 refused. Applications for "reports" by owners totalled 88 and all but 2 were granted.

Verminous Children, Glasgow (Police) Order, 1904.—Full details of the work of the nurse-inspectresses in connection with school and home visitations are to be found in Table XVII of the Appendix. That the work was well maintained is shown by the 87,522 children inspected. A slight fall (from 21·1 per cent. to 19·5 per cent.) was recorded in the number of children found with verminous conditions. The great majority of these are cleaned by parents or guardians on the instructions of the nurse-inspectresses. Follow-up visits were paid to the homes of children found verminous in 8,352 cases. Of these homes, 18 were found to be dirty and were dealt with accordingly. In one case the mother of two girls was also found to be heavily infested and the children were suffering from neglect. After warning and notice to attend the Reception House for cleansing had been ignored the circumstances were reported to the Royal Society for the Prevention of Cruelty to Children. The parents were brought to Court and both sentenced to 3 months imprisonment. The children were boarded-out.

Rehousing Scheme Visitation.—Supervision of these Schemes was carried on throughout the year and the complete figures are to be found in Table XVII. This is a branch of the nurse-inspectresses' work the full value of which cannot be shown statistically, but is nevertheless of great importance. Primary visits numbered 69,106 and the percentage of dirty houses found remained gratifyingly low. During the war years the former sharp distinction between "rehousing scheme" and "intermediate" tenants became somewhat blurred and an investigation conducted in one of the divisions showed that supervision of "intermediate" houses might be profitably extended.

Sanitary Conveniences.—The number of water closets used in common is 29,023, of these 6,175 serve two tenants, 15,435 serve three tenants, 6,127 serve four tenants, and 1,286 serve five or more tenants. The number of dry closets totals 122 and there are 45 privy middens serving dwelling-houses, which are situated in outlying parts of the City where no sewerage facilities are available. In addition there are seven dry closets serving two factories and three dry closets and one privy midden at farms, for use of employees. The number of houses with fixed baths totals 109,562, which represents 38 per cent. of all houses in the City.

Dietetic Water Storage Cisterns.—The prevailing practice is not to inspect cisterns in private houses but to concentrate on those serving two or more houses. 1,550 visits were made, and 744 cisterns found dirty were thoroughly cleaned. Many of the houses erected by the Corporation in the last two decades have been so located that the use of a storage cistern of this kind is imperative. Regular and systematic cleansing of these is carried out by a special gang of workmen under the direction of the Housing Department.

Cemeteries.—Twenty-two visits were made during the year to cemeteries within the City and in all cases conditions were satisfactory.

Conditions were also satisfactory in Brokers' premises, Home-workers' dwellings, and Bothies of agricultural workers, visits to which are shown in the Appendix Table XVII—Operations of Sanitary Section.

Offensive Trades.—The following statement shows the changes which have taken place since 1939. Under the Government Scheme, quite a number of pre-war business were closed down and the work concentrated on other premises in order to release man-power, etc. Most of the offensive trades are situated in the east end of the City and and the number in operation at the end of 1946 in that district was 30 compared with 43 in 1939.

OFFENSIVE TRADES.

	In Operation 1939.	Closed under Government Concentration Scheme.	On Register 1946.
Bone Boiler	7	†3	6
Gut Cleaner	4	—	4
Glue and Sizemaker	1	—	1
Hide and Skin Factor	9	5	9
Manure Manufacturer	5	‡2	2
Soap Boiler	6	2	6
Tallow Melter	16	*7	12
Tanner	10	1	9
Blood Boiler	1	—	1
Horse Slaughterer	1	—	1
Knacker	—	—	1
	60	20	52

† one added in 1942.
* one lapsed in 1939-40 and two in 1946.
‡ two lapsed in 1946.

DISINFECTION.

The following table summarises the washings and disinfections carried out at Ruchill and Belvidere Disinfecting Stations during the year 1946 :—

	Belvidere.	Ruchill.	Total.
Number of washings	9,186	10,437	19,623
Average number per day	31·1	34·67	32·39
Articles washed and disinfected ...	286,040	360,650	646,690
Average number of articles per washing	31·1	34·5	32·9
Fuel consumed (tons)	620	496	1,116
Fuel used per article (lbs.)	4·90	3·07	3·86
Soap and powder used per article (ozs.)	0·27	0·29	0·28
Disinfectant used per article	0·64	0·58	0·59

Number of Washings, Articles Disinfected, etc., for Years 1938-46 *Inclusive.*

	Washings.	Articles.	Houses, etc., Disinfected.	White-washings.	Library and School Books Disinfected.
1938 ...	19,088	665,641	12,457	2	1,602
1939 ...	18,189	681,074	10,419	—	1,550
1940 ...	26,780	841,572	12,427	14	1,346
1941 ...	25,106	903,562	10,494	4	1,319
1942 ...	27,095	104,945	11,101	1	1,956
1943 ...	24,981	894,119	11,207	1	2,004
1944 ...	23,513	803,748	11,056	1	1,763
1945 ...	21,756	742,306	10,840	—	1,498
1946 ...	19,623	646,690	9,430	2	3,026

Disinfection of Second-hand Clothing, etc.—The export of second-hand clothing to Ireland declined steeply after 1939 and, with the exception of one consignment in 1943, had ceased altogether in the years 1944 and 1945. In 1946 this trade was resumed and 210 consignments were disinfected during the year and certificates issued in compliance with the Irish Free State Regulations. Charges for this service amounted in all to £51 11s. 3d. The accompanying table gives the relative figures from 1939 to 1946 inclusive :—

	No. of Consignments.	Fees paid.
1939	375	£86 0 0
1940	310	77 1 4
1941	122	28 3 8
1942	19	5 5 7
1943	1	0 5 0
1944	—	—
1945	—	—
1946	210	51 11 3

TABLE I.—GLASGOW, 1946.—ESTIMATED POPULATION IN EACH MUNICIPAL WARD, ACREAGE, AND PERSONS PER ACRE.

MUNICIPAL WARDS	POPULATION				Acreage	Person per acr (includi Inst'utio and Shippin
	Without Institutions and Shipping	Institu-tions	Shipping	Total		
1. Shettleston and Tollcross	45,254	132	—	45,386	1,473	3
2. Parkhead ...	37,840	804	—	38,644	883	4
3. Dalmarnock ...	29,340	27	—	29,367	288	10
4. Calton ...	22,926	1,776	—	24,702	333	7
5. Mile-end ...	18,361	—	—	18,361	191	9
6. Whitevale ...	18,446	92	—	18,538	176	10
7. Dennistoun ...	25,556	341	—	25,897	280	9
8. Provan ...	43,753	1,079	—	44,832	2,935	1
9. Cowlairs ...	20,614	1,279	—	21,893	456	4
10. Springburn ...	24,683	3,752	—	28,435	4,741	
11. Townhead ...	22,819	1,478	—	24,297	175	13
12. Exchange ...	11,322	2,202	7	13,531	289	4
13. Blythswood ...	8,957	2,955	11	11,923	242	4
14. Anderston ...	21,196	867	806	22,869	422	5
15. Sandyford ...	16,226	600	—	16,826	152	11
16. Park	19,632	436	—	20,068	272	7
17. Cowcaddens ...	28,446	731	1	29,178	488	
18. Woodside ...	28,636	651	—	29,287	170	17
19. Ruchill ...	49,797	949	2	50,748	2,105	2
20. North Kelvin	19,629	60	—	19,689	146	13
21. Maryhill ...	25,313	2,462	4	27,779	2,210	1
22. Kelvinside ...	26,330	1,094	—	27,424	1,127	2
23. Partick (East)	24,169	894	—	25,063	268	9
24. ,, (West)	21,163	—	123	21,286	357	6
25. Whiteinch ...	31,779	639	13	32,431	1,266	2
26. Hutchesontown	33,942	20	—	33,962	387	8
27. Gorbals ...	37,993	582	—	38,575	252	15
28. Kingston ...	24,576	300	163	25,039	285	8
29. Kinning Park	30,381	98	245	30,724	379	7
30. Govan ...	35,008	307	—	35,315	529	6
31. Fairfield ...	30,607	1,402	104	32,113	1,403	2
32. Pollokshields	50,455	2,505	—	52,960	4,837	1
33. Camphill ...	17,743	54	—	17,797	366	4
34. Pollokshaws ...	27,141	57	—	27,198	3,324	
35. Govanhill ...	28,922	348	—	29,270	365	8
36. Langside ...	16,805	820	—	17,625	557	3
37. Cathcart ...	29,797	149	—	29,946	2,949	1
38. Yoker and Knightswood	35,954	68	—	36,022	2,647	1
CITY	1,041,511	32,010	1,479	1,075,000	39,725	2

BLE II.—GLASGOW, 1946.—INHABITED AND UNOCCUPIED HOUSES IN EACH MUNICIPAL WARD.

MUNICIPAL WARDS	INHABITED HOUSES*				Empty Houses
	1946	1945	Decrease	Increase	
1. Shettleston and Tollcross	11,715	11,774	59	—	9
2. Parkhead	10,050	10,048	—	2	6
3. Dalmarnock... ...	8,082	8,090	8	—	18
4. Calton	6,016	6,056	40	—	8
5. Mile-end	5,035	4,944	—	91	1
6. Whitevale	5,133	5,146	13	—	—
7. Dennistoun	7,203	7,195	—	8	8
8. Provan	11,707	11,679	—	28	10
9. Cowlairs	6,245	6,249	4	—	—
0. Springburn ...	6,482	6,471	—	11	6
1. Townhead	6,105	6,111	6	—	3
2. Exchange	3,148	3,185	37	—	35
3. Blythswood ...	2,294	2,295	1	—	3
4. Anderston	5,633	5,637	4	—	6
5. Sandyford	4,112	4,108	—	4	2
6. Park	5,548	5,525	—	23	16
7. Cowcaddens ...	7,784	7,788	4	—	4
8. Woodside	8,350	8,370	20	—	6
9. Ruchill	12,242	12,229	—	13	4
0. North Kelvin ...	6,009	6,035	26	—	16
1. Maryhill	6,858	6,870	12	—	4
2. Kelvinside ...	8,797	8,818	21	—	59
3. Partick (East) ...	6,668	6,654	—	14	7
4. ,, (West) ...	6,513	6,523	10	—	6
5. Whiteinch	9,162	9,069	—	93	6
6. Hutchesontown ...	9,665	9,669	4	—	3
7. Gorbals	9,631	9,683	52	—	7
8. Kingston	6,184	6,180	—	4	4
9. Kinning Park ...	8,315	8,313	—	2	1
0. Govan	8,983	9,034	51	—	3
1. Fairfield	8,297	8,295	—	2	2
2. Pollokshields ...	14,714	14,494	—	220	32
3. Camphill	6,009	5,997	—	12	9
4. Pollokshaws ...	7,665	7,664	—	1	4
5. Govanhill	8,468	8,467	—	1	1
6. Langside	5,226	5,216	—	10	8
7. Cathcart	9,539	9,518	—	21	4
8. Yoker and Knightswood ...	10,068	9,629	—	439	19
CITY ...	289,655	289,028	—	627	340

* Includes Inhabitant Occupiers

TABLE III.—Glasgow.—Linings Granted by Dean of Guild Court in Years from 1919 in respect of Houses.

Year ending 31st August.	Number of Apartments.						Tota
	1.	2.	3.	4.	5.	6.	
1919-20 (Annual Average)	—	6	692	246	107	29	1,08
1921-25 (do.)	—	308	638	400	234	51	1,63
1926-30 (do.)	—	350	3,067	1,346	448	90	5,30
1931 ...	—	122	2,220	1,900	38	26	4,30
1932 ...	33	529	3,464	1,251	70	4	5,35
1933 ...	—	270	1,845	3,162	337	23	5,63
1934 ...	34	603	1,825	787	80	52	3,38
1935 ...	—	220	2,082	792	128	9	3,23
1936 ...	—	—	1,462	1,320	290	12	3,08
1937 ...	—	2	687	847	301	34	1,87
1938 ...	—	—	2,017	3,068	824	50	5,85
1939 ...	—	—	2,159	3,324	717	2	6,20
1940-43 ...	—	—	—	—	—	—	—
1944 ...	36	—	—	5	1	—	4
1945 ...	—	—	79	94	5	—	17
1946 ...	33	—	812	2,503	483	12	3.84

TABLE IV.—ABSTRACT of Meteorological Observations taken at Springburn Public Park.

Months. 1946.	Temperature.			Rainfall.		Sunshi
	Highest Temp. in Shade.	Lowest Temp. in Shade.	Mean Temp.	No. of Days.	Amount Collected in inches.	Hours
January ...	48	20	35·9	20	4·91	27·
February ...	53	19	40·4	19	2·85	86·
March ...	67	19	41·0	17	2·41	76·
April ...	69	29	48·0	11	1·55	152·
May ...	72	31	51·8	11	1·36	264·
June ...	72	40	54·5	22	3·31	152·
July ...	77	47	58·6	21	3·79	134·
August ...	69	42	56·5	20	3·40	135·
September ...	72	45	54·7	26	6·77	58·
October ...	62	30	46·3	8	·61	72·
November ...	60	26	43·0	25	5·55	38·
December ...	49	23	36·3	22	3·42	21·
1936	80	17	47·2	230	40·85	1,07
1937	80	15	47·0	212	31·66	1,18
1938	76	20	48·1	242	49·76	1,17
1939	88	18	47·6	212	38·41	1,17
1940	85	6	46·5	210	39·52	1,11
1941	80	12	46·3	204	33·34	1,03
1942	80	18	46·3	220	40·64	1,06
1943	86	23	48·0	252	45·43	1,09
1944	80	21	47·3	231	44·44	95
1945	81	11	48·6	233	43·62	1,19
1946	77	19	47·3	222	39·93	1,22

ABLE V.—Glasgow.—BIRTHS and Birth-rates *per Million* in each Ward, for the year 1946, and Number and Percentage of Illegitimate Births.

Municipal Wards.	Births 1946	Birth-rate 1946	Birth-rate 1945	Illegitimate Births.	
				No.	% Total Births.
1. Shettleston and Tollcross	919	20,248	18,473	57	6·2
2. Parkhead	875	22,643	18,597	64	7·3
3. Dalmarnock	754	25,675	22,284	47	6·2
4. Calton	576	23,318	20,689	56	9·7
5. Mile-end	491	26,741	22,539	28	5·7
6. Whitevale	471	25,407	20,002	17	3·6
7. Dennistoun	465	17,956	16,078	20	4·3
8. Provan	1,056	23,555	19,805	53	5·0
9. Cowlairs	425	19,413	19,632	17	4·0
10. Springburn	520	18,287	16,076	20	3·8
11. Townhead	580	23,871	20,033	53	9·1
12. Exchange	349	25,792	19,923	36	10·3
13. Blythswood	189	15,851	14,494	19	10·0
14. Anderston	593	25,930	20,550	34	5·7
15. Sandyford	390	23,178	20,158	37	9·5
16. Park	408	20,330	17,867	43	10·5
17. Cowcaddens	829	28,412	23,501	74	8·9
18. Woodside	706	24,106	22,217	68	9·6
19. Ruchill	1,117	22,011	19,435	79	7·1
20. North Kelvin	415	21,078	19,868	30	7·2
21. Maryhill	578	20,807	17,530	34	5·9
22. Kelvinside	400	14,586	12,967	10	2·5
23. Partick (East)	507	20,229	17,661	32	6·3
24. ,, (West)	418	19,637	19,691	19	4·5
25. Whiteinch	631	19,457	18,639	23	3·6
26. Hutchesontown	854	25,146	20,817	38	4·4
27. Gorbals	1,071	27,764	27,604	103	9·6
28. Kingston	693	27,677	21,445	44	6·3
29. Kinning Park	813	26,461	23,502	56	6·9
30. Govan	922	26,108	24,217	53	5·7
31. Fairfield	699	21,767	17,353	28	4·0
32. Pollokshields	941	17,768	17,935	39	4·1
33. Camphill	311	17,475	14,632	6	1·9
34. Pollokshaws	574	21,104	18,281	25	4·3
35. Govanhill	544	18,586	17,267	18	3·3
36. Langside	283	16,057	12,241	5	1·8
37. Cathcart	453	15,127	13,557	10	2·2
38. Yoker and Knightswood	698	19,377	18,243	30	4·3
Institutions	42	—	—	24	54·7
Harbour	—	—	—	—	—
City	23,560	21,916	19,328	1,449	6·1

TABLE VI.—Glasgow.—DEATHS and Death-rates *per Million* in each Municipal Ward, for the Year 1946, and corresponding Rates for 1945 and 1944.

Municipal Wards.	Deaths 1946	Death-rates		
		1946	1945	1944
1. Shettleston and Tollcross ...	584	12,905	11,478	11,690
2. Parkhead	483	12,764	14,204	13,549
3. Dalmarnock	339	11,554	12,093	14,104
4. Calton	353	15,397	16,542	16,468
5. Mile-end	247	13,452	13,114	14,925
6. Whitevale	251	13,607	14,114	14,723
7. Dennistoun	378	14,791	12,149	12,905
8. Provan	559	12,776	13,366	13,696
9. Cowlairs	228	11,060	11,710	12,751
10. Springburn	270	10,939	11,755	12,672
11. Townhead	305	13,366	14,430	15,076
12. Exchange	188	16,604	13,762	18,062
13. Blythswood	143	15,965	16,335	17,427
14. Anderston	296	13,965	13,753	15,124
15. Sandyford	194	11,956	14,207	14,733
16. Park	291	14,823	14,345	16,305
17. Cowcaddens	414	14,554	14,385	16,051
18. Woodside	401	14,003	14,120	15,445
19. Ruchill	622	12,491	11,029	12,789
20. North Kelvin	257	13,093	12,306	13,478
21. Maryhill	307	12,128	11,787	12,860
22. Kelvinside	353	13,407	13,302	12,158
23. Partick (East)	351	14,523	13,411	13,938
24. ,, (West)	273	12,900	12,942	12,289
25. Whiteinch	388	12,209	11,779	12,596
26. Hutchesontown	408	12,021	11,394	12,398
27. Gorbals	591	15,555	14,979	16,103
28. Kingston	346	14,079	12,753	14,514
29. Kinning Park	391	12,870	13,109	14,142
30. Govan	440	12,569	12,908	14,168
31. Fairfield	356	11,631	10,570	11,421
32. Pollokshields	637	12,625	12,501	12,533
33. Camphill	241	13,583	15,376	13,022
34. Pollokshaws	358	13,190	12,334	12,616
35. Govanhill	351	12,136	13,875	13,216
36. Langside	264	15,710	13,060	13,038
37. Cathcart	418	14,028	13,323	12,514
38. Yoker and Knightswood ...	413	11,487	11,341	11,108
Institutions	804	—	—	—
Harbour	9	—	—	—
City	14,502	13,490	13,277	13,908

TABLE VII.—GLASGOW.—NUMBER OF OUTWARD AND INWARD TRANSFER DEATHS FOR THE YEAR 1946.

CAUSE OF DEATH.	Outward Transfers	Inward Transfers
1. Typhoid and Paratyphoid Fevers	1	—
2. Cerebrospinal Fever	9	—
3. Scarlet Fever	1	—
4. Whooping Cough	1	—
5. Diphtheria	3	—
6. Erysipelas	—	—
7. Tuberculosis of Respiratory System	42	146
8. Tubercular Meningitis	30	4
9. Abdominal Tuberculosis	4	1
10. Other Tuberculous Disease	19	7
11. Syphilitic Disease	9	4
12. Influenza	5	4
13. Measles	—	—
14. Acute Poliomyelitis and Polioencephalitis	—	1
15. Acute Infectious Encephalitis	—	—
16. Cancer—all forms	357	67
17. Diabetes	31	10
18. Intra-cranial Vascular Lesions	83	53
19. Other Nervous Diseases	38	36
20. Heart Disease	203	146
21. Other Diseases of Circulatory System	38	14
22. Bronchitis	13	11
23. Pneumonia	59	16
24. Other Respiratory Diseases	14	5
25. Ulceration of the Stomach and the Duodenum ...	36	5
26. Diarrhoea (under 2 years)	20	3
27. Appendicitis	24	1
28. Other Digestive Diseases	143	12
29. Nephritis	36	9
30. Puerperal and Post-abortive Sepsis	5	—
31. Other Maternal Causes	10	—
32. Premature Birth	60	10
33. Congenital Malformations, Birth Injury, Infantile Disease	67	11
34. Suicide, Road Traffic Accidents, and other Violent Causes	123	60
35. All Other Causes	276	65
TOTAL	1,760	701

TABLE VIII.—Glasgow.—Deaths and Death-rates *per Million* from Different Causes, for the Year 1946, and Corresponding Rates for 1945 and 1944.

Cause of Death.	Deaths	Annual Death-rate per Million.		
	1946	1946	1945	1944
1. Typhoid and Paratyphoid Fevers ...	4	4	3	1
2. Cerebro-spinal Fever	26	24	29	27
3. Scarlet Fever	1	1	4	7
4. Whooping Cough	20	19	33	34
5. Diphtheria	37	34	31	59
6. Erysipelas	13	12	8	6
7. Tuberculosis of Respiratory System	1,185	1,102	1,033	1,080
8. Tubercular Meningitis	156	145	159	185
9. Abdominal Tuberculosis	15	14	21	18
10. Other Tuberculous Diseases ...	71	66	69	76
11. Syphilitic Disease	70	65	56	43
12. Influenza	160	149	44	75
13. Measles	24	22	23	15
14. Acute Poliomyelitis and Polioencephalitis	3	3	2	—
15. Acute Infectious Encephalitis ...	15	14	21	10
16. Cancer—All forms	1,899	1,767	1,832	1,690
17. Diabetes	170	158	159	126
18. Intra-cranial Vascular Lesions ...	1,324	1,232	1,255	1,242
19. Other Nervous Diseases	303	282	292	309
20. Heart Disease	3,485	3,242	3,110	3,011
21. Other Diseases of Circulatory System	291	271	265	274
22. Bronchitis	344	320	324	312
23. Pneumonia	711	661	529	696
24. Other Respiratory Diseases ...	153	142	91	118
25. Ulceration of the Stomach and the Duodenum	107	100	98	96
26. Diarrhoea (under 2 years)	295	274	367	668
27. Appendicitis	32	30	50	50
28. Other Digestive Diseases	276	257	320	329
29. Nephritis	247	230	226	273
30. Puerperal and Post-abortive Sepsis	18	17	28	37
31. Other Maternal Causes	54	50	43	48
32. Premature Birth	439	408	333	423
33. Congenital Malformations, Birth Injury, Infantile Diseases ...	388	361	274	395
34. Suicide, Road Traffic Accidents, and other Violent Causes	553	514	527	565
35. All other Causes	1,613	1,500	1,618	1,610
36. Smallpox	—	—	—	—
All Causes	14,502	13,490	13,277	13,908

ABLE X.—GLASGOW, 1946.—DEATHS OCCURRING IN INSTITUTIONS FOR THE TREATMENT OF THE SICK, NURSING HOMES, &C.

CAUSE OF DEATH.	Local Authority General Hospitals and Poorhouses.	Local Authority Fever Hospitals and Sanatoria.	Local Authority Mental Hospitals.	Voluntary Hospitals and Infirmaries.	Nursing Homes, &c.	Totals.	% of all Deaths.	Outward Transfer Deaths.
1. Typhoid and Paratyphoid Fevers	—	4	—	—	—	4	100·0	1
2. Cerebrospinal Fever ...	3	20	—	1	—	24	92·3	9
3. Scarlet Fever	—	1	—	—	—	1	100·0	1
4. Whooping Cough	—	12	—	—	—	12	60·0	1
5. Diphtheria	—	37	—	—	—	37	100·0	3
6. Erysipelas	2	9	—	—	—	11	84·6	—
7. Tuberculosis of Respiratory System	144	393	41	74	2	654	55·2	39
8. Tubercular Meningitis ...	17	100	—	30	—	147	94·2	30
9. Abdominal Tuberculosis ...	4	3	1	6	—	14	93·3	3
10. Other Tuberculous Disease	12	25	2	12	1	52	73·2	19
11. Syphilitic Disease	34	1	10	11	2	58	82·8	8
12. Influenza	2	3	4	10	1	20	12·5	4
13. Measles	1	15	—	—	—	16	66·6	—
14. Acute Poliomyelitis and Polioencephalitis ...	1	2	—	—	—	3	100·0	—
15. Acute Infectious Encephalitis	7	—	—	—	—	7	46·7	—
16. Cancer—all forms	460	30	27	362	24	903	47·5	350
17. Diabetes	31	2	6	40	—	79	46·5	29
18. Intracranial Vascular Lesions	323	6	33	105	34	501	37·8	69
19. Other Nervous Diseases ...	74	16	46	30	6	172	56·7	37
20. Heart Disease	649	42	99	183	53	1026	29·4	170
21. Other Diseases of Circulatory System	108	4	9	34	5	160	55·0	34
22. Bronchitis	55	11	9	34	2	111	32·2	12
23. Pneumonia	195	157	16	66	9	443	62·3	56
24. Other Respiratory Diseases	31	12	13	22	2	80	52·3	13
25. Ulceration of the Stomach and the Duodenum ...	13	1	1	78	2	95	88·7	36
26. Diarrhoea (under 2 years) ...	91	114	—	37	—	242	82·0	20
27. Appendicitis	1	2	—	28	—	31	96·8	24
28. Other Digestive Diseases ...	56	9	2	131	8	206	74·6	142
29. Nephritis	55	9	6	51	1	122	49·3	36
30. Puerperal and Post-abortive Sepsis	4	7	—	5	—	16	88·8	5
31. Other Maternal Causes ...	22	1	—	21	3	47	87·0	10
32. Premature Birth	227	18	5	73	17	340	77·4	59
33. Congenital Malformations, Birth Injury, Infantile Disease	127	17	7	90	31	272	70·1	66
34. Suicide, Road Traffic Accidents, and other Violent Causes	53	3	1	227	5	289	52·2	112
35. All Other Causes	337	33	32	265	19	686	42·5	241
YEAR 1946	3,139	1,119	370	2,026	227	6,881	47·44	1,639
YEAR 1945	3,113	1,142	439	1,963	215	6,872	49·2	1,732

TABLE IX.—Glasgow, 1946.—DEATHS FROM

CAUSE OF DEATH.	MALES.													Sex Unknown −1 yr.	Total Males.
	−1	−2	−5	−10	−15	−20	−25	−35	−45	−55	−65	−75	75+		
1. Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	1	—	1	1	—	—	—	3
2. Cerebro-spinal Fever ...	5	2	3	1	—	—	—	—	2	1	1	—	—	—	15
3. Scarlet Fever	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
4. Whooping Cough	6	—	—	1	—	—	—	—	—	—	—	—	—	—	7
5. Diphtheria	2	4	7	3	2	1	—	—	—	—	—	—	—	—	19
6. Erysipelas	—	—	—	—	—	—	—	1	—	—	—	2	—	—	3
7. Tuberculosis of Respiratory System	6	6	7	1	6	32	55	109	128	130	87	42	4	—	613
8. Tubercular Meningitis ...	6	11	17	19	9	8	1	1	1	1	—	—	—	—	74
9. Abdominal Tuberculosis ...	—	—	—	—	—	2	1	2	1	2	—	—	—	—	8
10. Other Tuberculous Disease	2	1	2	4	2	3	2	2	5	4	2	3	1	—	33
11. Syphilitic Disease ...	2	—	—	—	1	—	—	1	9	14	9	13	2	—	51
12. Influenza	3	—	3	—	2	3	2	1	5	9	16	10	21	—	75
13. Measles	5	6	1	—	—	—	—	—	—	—	—	—	—	—	12
14. Acute Poliomyelitis and Polioencephalitis ...	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
15. Acute Infectious Encephalitis	—	—	—	—	—	—	—	1	1	—	3	—	—	—	5
16. Cancer—all forms ...	1	—	2	1	1	1	1	16	47	157	260	337	161	—	985
17. Diabetes	—	—	—	—	—	—	—	3	2	9	14	17	10	—	55
18. Intra-cranial Vascular Lesions	—	—	—	—	—	1	1	2	7	36	109	240	169	—	565
19. Other Nervous Diseases ...	49	5	3	7	4	4	5	12	17	12	14	22	8	—	162
20. Heart Disease	1	1	2	—	5	6	9	25	70	191	407	564	519	—	1800
21. Other Diseases of Circulatory System	—	—	—	—	—	—	—	1	1	6	23	64	60	—	155
22. Bronchitis	12	—	1	—	—	—	2	6	13	41	60	41	32	—	208
23. Pneumonia	152	12	8	1	2	1	—	8	27	40	60	68	38	—	417
24. Other Respiratory Diseases	3	1	—	—	—	—	—	3	5	11	24	17	15	—	79
25. Ulceration of the Stomach and the Duodenum ...	—	—	—	—	—	—	2	2	15	22	21	18	7	—	87
26. Diarrhoea (under 2 years)	166	6	—	—	—	—	—	—	—	—	—	—	—	—	172
27. Appendicitis	—	—	1	1	—	1	—	—	5	2	3	4	—	—	17
28. Other Digestive Diseases	6	—	3	2	—	2	—	6	10	16	38	31	22	—	136
29. Nephritis	1	—	—	—	2	1	2	3	12	22	26	24	23	—	116
30. Puerperal and Post-abortive Sepsis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31. Other Maternal Causes ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
32. Premature Birth	240	—	—	—	—	—	—	—	—	—	—	—	—	1	240
33. Congenital Malformations, Birth Injury, Infantile Diseases	230	3	5	2	—	2	1	—	3	3	—	—	—	—	249
34. Suicide, Road Traffic Accidents and other Violent Causes	9	4	16	25	18	5	9	24	43	54	51	49	47	—	354
35. Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36. All other Causes	11	4	6	6	7	5	8	12	51	88	166	267	265	—	896
All Causes	918	66	88	75	61	78	101	242	480	872	1395	1833	1404	1	7614

Different Causes in Sexes and at several Age-Periods.

CAUSE OF DEATH.	FEMALES.													Total Females.	Total Both Sexes.
	−1	−2	−5	−10	−15	−20	−25	−35	−45	−55	−65	−75	75+		
1. Typhoid and Paratyphoid Fevers	—	—	—	—	—	1	—	—	—	—	—	—	—	1	4
2. Cerebro-spinal Fever ...	7	1	3	—	—	—	—	—	—	—	—	—	—	11	26
3. Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
4. Whooping Cough	5	6	1	1	—	—	—	—	—	—	—	—	—	13	20
5. Diphtheria	—	1	11	2	1	1	—	—	1	—	1	—	—	18	37
6. Erysipelas	—	—	—	—	—	—	—	—	—	—	1	5	4	10	13
7. Tuberculosis of Respiratory System	7	8	5	6	12	85	115	174	81	45	19	12	3	572	1185
8. Tubercular Meningitis ...	7	4	12	17	13	13	8	2	5	1	—	—	—	82	156
9. Abdominal Tuberculosis ...	—	—	—	—	—	2	—	1	2	—	2	—	—	7	15
10. Other Tuberculous Disease	2	4	3	1	7	4	2	3	6	1	2	2	1	38	71
11. Syphilitic Disease ...	2	—	—	—	—	—	—	1	2	5	4	2	3	19	70
12. Influenza	4	1	—	—	—	—	—	4	3	8	5	25	35	85	160
13. Measles	5	5	2	—	—	—	—	—	—	—	—	—	—	12	24
14. Acute Poliomyelitis and Polioencephalitis ...	—	—	—	1	—	—	—	—	1	—	—	—	—	2	3
15. Acute Infectious Encephalitis	—	—	—	—	—	—	—	—	3	2	5	—	—	10	15
16. Cancer—all forms ...	—	1	—	—	—	—	1	20	55	149	218	283	187	914	1899
17. Diabetes	—	—	—	—	—	1	—	2	5	10	33	40	24	115	170
18. Intra-cranial Vascular Lesions	—	—	—	—	—	1	—	1	11	51	143	255	297	759	1324
19. Other Nervous Diseases ...	30	3	3	3	2	4	1	16	15	24	20	11	9	141	303
20. Heart Disease	1	—	1	4	3	8	14	29	81	112	251	494	687	1685	3485
21. Other Diseases of Circulatory System	—	—	—	—	—	—	2	1	3	11	19	44	56	136	291
22. Bronchitis	8	—	1	—	1	—	—	4	7	11	12	31	61	136	344
23. Pneumonia	96	12	4	1	1	—	2	7	14	13	35	44	65	294	711
24. Other Respiratory Diseases	6	—	1	—	2	1	1	3	7	15	13	8	17	74	153
25. Ulceration of the Stomach and the Duodenum ...	—	—	—	—	—	—	—	—	2	6	7	3	2	20	107
26. Diarrhoea (under 2 years)	117	6	—	—	—	—	—	—	—	—	—	—	—	123	295
27. Appendicitis	—	—	—	2	—	—	—	1	2	4	4	1	1	15	32
28. Other Digestive Diseases	4	1	3	—	1	1	2	7	11	16	25	45	24	140	276
29. Nephritis	—	1	—	—	2	1	1	12	12	21	30	31	20	131	247
30. Puerperal and Post-abortive Sepsis	—	—	—	—	—	—	2	10	6	—	—	—	—	18	18
31. Other Maternal Causes ...	—	—	—	—	—	—	10	30	12	2	—	—	—	54	54
32. Premature Birth	198	—	—	—	—	—	—	—	—	—	—	—	—	198	439
33. Congenital Malformations, Birth Injury, Infantile Diseases	136	—	—	—	—	—	—	2	1	—	—	—	—	139	388
34. Suicide, Road Traffic Accidents and other Violent Causes	16	2	10	9	1	3	4	9	12	15	25	38	55	199	553
35. Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36. All other Causes	18	1	5	2	5	9	1	23	44	67	89	163	290	717	1613
All Causes	669	57	65	49	51	135	166	362	404	589	963	1537	1841	6888	14502

TABLE XI.—GLASGOW.—DEATHS UNDER 1 YEAR AND DEATH-RATES PER 1,0 BIRTHS IN EACH MUNICIPAL WARD, FOR THE YEAR 1946.

MUNICIPAL WARDS.	Deaths —1 Year.	Death Rate per 1,000 Births.		
	1946.	1946.	1945.	1944.
1. Shettleston and Tollcross	67	73	54	79
2. Parkhead	63	72	78	77
3. Dalmarnock	56	74	72	119
4. Calton	47	82	79	127
5. Mile-End	35	71	75	124
6. Whitevale	29	61	99	122
7. Dennistoun	32	69	49	84
8. Provan	77	73	64	96
9. Cowlairs	21	40	72	92
10. Springburn	38	73	59	98
11. Townhead	42	72	93	141
12. Exchange	33	94	121	154
13. Blythswood	13	69	89	120
14. Anderston	48	81	79	97
15. Sandyford	22	56	66	59
16. Park	14	34	40	88
17. Cowcaddens	62	75	100	118
18. Woodside	46	65	94	109
19. Ruchill	62	55	63	104
20. North Kelvin	23	55	44	95
21. Maryhill	31	54	53	90
22. Kelvinside	10	25	43	51
23. Partick (East)	57	112	81	91
24. Partick (West)	25	60	37	74
25. Whiteinch	25	40	55	70
26. Hutchesontown	64	75	72	110
27. Gorbals	93	87	113	118
28. Kingston	64	92	82	102
29. Kinning Park	57	70	67	111
30. Govan	87	94	89	110
31. Fairfield	41	57	46	81
32. Pollokshields	44	47	41	62
33. Camphill	8	26	35	54
34. Pollokshaws	35	61	68	61
35. Govanhill	27	50	51	82
36. Langside	17	60	24	64
37. Cathcart	19	42	23	41
38. Yoker and Knightswood	48	69	47	64
Institutions	5	—	—	—
Harbour	1	—	—	—
CITY	1,588	67	68	95

CAUSE OF DEATH.	MALES.						FEMALES.						Total — I year. Both Sexes.
	Age in Months.						Age in Months.						
	— 1	— 3	— 6	— 9	— 12	Total.	— 1	— 3	— 6	— 9	— 12	Total.	
I. CONGENITAL MALFORMATIONS	40	20	7	2	2	71	37	6	3	4	1	51	122
II. DISEASES OF EARLY INFANCY—													
(a) Congenital Debility, Sclerema, and Icterus	27	10	2	—	1	40	12	7	2	—	—	21	61
(b) Premature Birth	227	10	2	1	—	240	185	12	1	—	—	198	438*
(c) Injury at Birth	47	3	1	—	2	53	27	—	—	—	—	27	80
(d) Atelectasis	41	—	1	—	—	42	23	—	—	—	—	23	65
(e) Others	21	2	1	—	—	24	10	3	—	1	—	14	38
III. DISEASES OF RESPIRATORY SYSTEM ...	43	45	42	23	14	167	35	30	31	9	5	110	277
IV. DISEASES OF DIGESTIVE SYSTEM—													
(a) Diarrhoeal	11	48	53	41	13	166	12	28	46	23	8	117	283
(b) Others	1	1	2	2	—	6	1	1	1	1	—	4	10
V. DISEASES OF NERVOUS SYSTEM ...	6	20	15	8	—	49	1	7	12	7	3	30	79
VI. TUBERCULOUS DISEASES—													
(a) Pulmonary Tuberculosis	—	—	—	1	5	6	—	—	5	—	2	7	13
(b) Tuberculous Meningitis	—	—	2	2	2	6	—	1	3	1	2	7	13
(c) Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—
(d) Other Forms	—	—	1	—	1	2	—	—	1	1	—	2	4
VII. INFECTIOUS DISEASES—													
(a) Measles	—	—	1	2	2	5	—	—	1	3	1	5	10
(b) Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
(c) Whooping Cough	—	1	2	2	1	6	1	2	1	—	1	5	11
(d) Diphtheria	—	—	—	—	2	2	—	—	—	—	—	—	2
(e) Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—
(f) Cerebro-spinal Fever	—	2	—	2	1	5	—	3	—	2	2	7	12
(g) Varicella	—	—	—	—	—	—	—	—	—	—	—	—	—
(h) Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—
VIII. SYPHILIS	—	1	1	—	—	2	—	1	1	—	—	2	4
IX. OVERLAYING	—	1	1	—	—	2	4	1	1	—	—	6	8
X. OTHER VIOLENCE	1	—	6	—	—	7	3	1	3	1	2	10	17
XI. ALL OTHER CAUSES	2	4	7	3	1	17	3	4	10	5	1	23	40
TOTALS	467	168	147	89	47	918	354	107	122	58	28	669	1,587

* In addition there was one death from Premature Birth of which the sex is unknown.

TABLE XIII.—Glasgow, 1944-1946.—Abstract of Notifications und Notification of Births Act, 1907, and Results of Visits.

	1946	1945	1944
Total Number of Notifications	24,780	20,979	22,639
Doctor at Home	3,434	2,773	3,283
Doctor in Nursing Home	2,609	2,285	2,336
Doctor in Institution	10,100	9,394	9,442
Maternity Hospital (Outdoor) Nurse ...	2,639	2,076	2,522
Midwife in Nursing Home	419	392	396
Certified Midwife	2,423	1,921	4,624
Municipal Midwife	3,145	2,130	
Others	11	8	6
Total Cards issued	19,713	16,728	17,942
Total Cards returned	19,319	16,869	17,929
Full Information	18,947	16,524	17,539
Doctor found in Attendance	—	—	1
Others	372	345	389

TABLE XIV.—Glasgow, 1944-1946.—Births Notified showing Medicall and not Medically Attended.

	1946	1945	1944
Notifications Received—*less Duplicates*—			
Total	24,780	20,979	22,639
Live-births	23,894	20,243	21,878
Still-births	886	736	761
Per cent. Still-births to Total	3·6	3·5	3·3
Medically attended—			
Births at Home	3,434	2,773	3,283
Births in Nursing Home	2,609	2,285	2,366
In Institutions	10,100	9,394	9,442
Total	16,143	14,452	15,091
Per cent.	65·1	68·8	66·6
Still-births at Home	108	75	83
Still-births in Nursing Home	66	60	52
Still-births in Institutions	541	469	626
Not Medically attended—			
Maternity Hospital, Outdoor Nurse ...	2,639	2,076	2,522
Certified Midwives in Nursing Home ...	419	392	396
Certified Midwives in Private Practice	2,423	1,921	4,624
Municipal Midwives	3,145	2,130	
Others	11	8	6
Total	8,637	6,527	7,548
Per cent.	35	31	33
Still-births	171	132	177

TABLE XV.—GLASGOW, 1946 and 1945.—CASES OF INFECTIOUS DISEASE REGISTERED AND NUMBERS OF THESE TREATED IN FEVER HOSPITALS, &c.

	1946				1945			
	Fever Hosp.	Other Insti-tutions	Home	Total	Fever Hosp.	Other Insti-tutions	Home	Total
A.—Notifiable—								
Typhus Fever	—	—	—	—	—	—	—	—
Enteric Fever	29	—	—	29	11	—	—	11
Paratyphoid B	15	—	—	15	26	—	1	27
Continued and Undefined Fever	—	—	—	—	—	—	—	—
Puerperal Fever ...	281	22	2	305	257	27	4	288
Puerperal Pyrexia ...	87	87	18	192	85	107	12	204
Smallpox	—	—	—	—	2	—	—	2
Scarlet Fever	2,295	—	1,136	3,431	2,768	1	648	3,417
Diphtheria and Membranous Croup	1,449	3	6	1,458	1,960	1	9	1,970
Erysipelas	252	5	224	481	257	2	266	525
Cholera	—	—	—	—	—	—	—	—
Cerebro-spinal Fever ...	217	5	5	227	116	6	8	130
Ophthalmia Neonatorum	42	2	296	340	48	3	276	327
Trachoma	—	5	9	14	—	4	4	8
Acute Encephalitis Lethargica	2	1	3	6	—	1	3	4
Acute Polio-Encephalitis	1	1	—	2	—	—	—	—
Acute Poliomyelitis ...	1	1	—	2	5	—	2	7
Acute Primary Pneumonia	2,532	1,755	1,864	6,151	2,547	1,216	1,113	4,876
Acute Influenzal-Pneumonia	71	66	82	219	33	25	20	78
Malaria	37	8	21	66	15	7	3	25
Dysentery	420	5	147	572	1,066	36	372	1,474
nfective Jaundice ...	—	—	—	—	4	—	—	4
Anthrax	1	—	—	1	—	—	—	—
Pulmonary Tuberculosis	920	—	1,889	2,809	967	—	1,674	2,641
Other Forms of Tuberculosis	131	—	377	508	177	—	378	555
B.—Not Notifiable								
Measles	928	6	8,762	9,696	702	2	5,308	6,012
German Measles ...	111	—	981	1,092	66	—	525	591
Whooping-cough ...	203	2	2,521	2,726	185	1	2,589	2,775
Chickenpox	160	—	4,720	4,880	278	2	4,992	5,272
Mumps	24	—	8	32	37	—	4	41
Pemphigus Neonatorum	29	—	7	36	20	—	13	33
Leprosy	—	—	—	—	1	—	—	1
Totals	10,238	1,974	23,078	35,290	11,633	1,441	18,224	31,298
Notified, but diagnosis altered to Non-Infectious Diseases ...	2,584	12	—	2,596	2,257	2	1	2,260
Total Registered ...	12,822	1,986	23,078	37,886	13,890	1,443	18,225	33,558

Where patients suffer from two or more diseases, each disease is reckoned as a case.

Apart from cases of pneumonia admitted to Corporation General Hospitals and Voluntary
titutions in times of pressure ; cases of puerperal fever, puerperal pyrexia, and ophthalmia
natorum occurring in other than Fever Hospitals and allowed to remain ; and cases of
choma treated in Stobhill Hospital ; the cases shown under the headings " Corporation
neral Hospitals " and " Other Institutions " are, for the most part, accidental.

TABLE XVI.—CASES OF INFECTIOUS DISEASE REGISTERED IN EACH MONTH IN 1946.

	MONTH.												YEAR.	
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Hosp.	Home
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric, including Paratyphoid Fever ...	4	1	3	—	2	—	19	11	1	1	2	—	44	—
Continued and Undefined Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	15	17	27	37	26	25	24	26	26	25	28	29	303	2
Puerperal Pyrexia	9	17	20	25	14	20	12	10	12	16	19	18	174	18
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	277	229	264	186	199	195	146	162	235	360	569	609	2,295	1,136
Diphtheria and Membranous Croup	159	125	126	136	115	125	84	122	105	138	119	104	1,452	6
Erysipelas	53	36	46	39	43	37	28	16	39	45	54	45	257	224
Cerebro-spinal Fever	39	20	34	38	20	11	19	6	7	6	12	15	222	5
Ophthalmia Neonatorum	23	32	23	29	25	21	32	36	29	33	32	25	44	296
Trachoma	—	1	4	2	2	—	2	—	—	—	1	2	5	9
Acute and Chronic Encephalitis Lethargica...	—	—	1	1	—	1	—	—	2	1	—	—	3	3
Acute Polioencephalitis	—	—	1	—	—	1	—	—	—	—	—	—	2	—
Acute Poliomyelitis	—	—	—	—	1	—	—	—	—	—	1	—	2	—
Acute Primary Pneumonia	1,112	763	703	410	415	298	274	208	226	390	640	712	4,287	1,864
Acute Influenzal Pneumonia	81	46	42	7	7	6	2	3	3	2	8	12	137	82
Malaria	5	7	6	3	3	14	9	8	7	1	2	1	45	21
Dysentery	65	55	54	31	79	40	28	45	47	46	47	35	425	147
Pulmonary Tuberculosis	217	243	243	252	292	213	215	196	250	231	223	234	920	1,889
Tuberculosis	40	36	56	48	58	51	41	32	32	47	34	33	131	377
Measles	402	840	2,169	2,263	2,569	1,060	73	44	48	88	67	73	934	8,762
German Measles	27	30	87	132	281	332	32	13	41	28	43	46	111	981
Whooping Cough	97	94	113	117	162	139	22	99	296	416	566	605	205	2,521
Chickenpox	603	601	746	435	627	499	28	25	136	242	389	549	160	4,720
Total	3,228	3,193	4,768	4,191	4,940	3,088	1,090	1,062	1,542	2,116	2,856	3,147	35,221	
Hospital	1,419	1,068	1,402	1,103	1,124	935	731	643	707	974	1,070	982	12,158	—
Home	1,809	2,125	3,366	3,088	3,816	2,153	359	419	835	1,142	1,786	2,165	—	23,063
Add * others ...													54	15
Altered diagnosis													2,596	—
													14,808	23,078

*Mumps, 32; Pemphigus Neonatorum, 36 and Anthrax, 1.

TABLE XVII.

OPERATIONS OF SANITARY SECTION.

1. (a) **Nuisances.**	Central	Northern	Eastern	South-Eastern	South-Western	City 1946	City 1945
INSPECTIONS made—							
Nuisances	129,844	157,008	118,891	54,027	148,749	608,519	523,301
Bug Disinfestation	1,013	838	658	216	81	2,806	2,100
Water Storage Cisterns ...	166	151	276	786	171	1,550	3,321
Limewashings	3,688	10,941	6,802	5,567	6,322	33,320	23,943
Stair Cleaning	5,236	10,980	7,658	2,966	10,580	37,420	40,996
Drain Testing	5,879	3,312	1,786	1,794	4,415	17,186	9,787
Rats and Mice Destruction Acts	2,726	2,724	6,743	7,240	1,777	21,210	12,405
Total	148,552	185,954	142,814	72,596	172,095	722,011	615,853
Nuisances removed or remedied	8,091	17,164	13,167	10,204	16,688	65,314	66,879
Consisting of—							
Apartments, Lobbies, or W.C.'s, with insufficient light or ventilation, or otherwise defective in construction	—	1	—	1	4	6	3
Defective Chimneys causing nuisance	107	151	99	141	104	602	497
Disrepair or dampness in Dwelling-houses	1,133	2,374	1,527	1,752	2,096	8,882	8,699
Offensive smells from Drains, or other reasonable grounds—smoke test	1	3	3	16	6	29	5
Drains, Conductors, Soil-pipes, or Rones choked or defective ...	4,117	7,576	5,808	4,262	8,120	29,883	31,262
Sanitary Fittings choked or defective	607	1,127	703	713	1,113	4,263	4,980
Dirty Houses and Bedding ...	21	132	1,091	125	37	1,406	1.581
Dirty Closes, Stairs, etc. (daily and bi-weekly cleaning) ...	134	1,034	348	289	393	2,198	2,417
Houses overcrowded	—	691	425	—	395	1,511	1,045
Common passages, stairs or staircases not in a cleanly state (limewashing or painting) ...	561	1,628	1,450	1,443	1,135	6,217	3,280
Animals or Poultry kept so as to be a nuisance	—	5	2	—	4	11	28
Accumulation of Garbage or Rubbish	217	160	52	115	140	684	644
Smells from Decaying Animal Matter or other cause ...	7	9	5	15	10	46	41
Stagnant Water	15	11	15	55	38	134	121
Premises infested with Rats or other vermin	204	293	362	172	91	1,122	938
Sink accommodation and Water Supply required	—	—	—	1	1	2	2
Water-Closet accommodation required	—	1	—	1	—	2	—
Water Storage Cisterns dirty, uncovered, or unventilated ...	89	118	162	295	80	744	1,388
Water Supply Pipes defective—tenants without water ...	55	100	37	53	271	516	1.775

TABLE XVII.—*Continued.*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1946	City 1945
Pit Shaft without adequate protection	—	—	—	—	—	—	—
Reports to Gas Manager ...	—	5	—	3	1	9	11
,, Master of Works ...	431	965	597	503	1,829	4,325	4,819
,, Superintendent of Cleansing	4	54	50	18	76	202	234
,, Water Engineer ...	388	726	431	231	744	2,520	3,109
Prosecutions—Sheriff Court ...	—	—	—	—	1	1	2
,, Police Court ...	3	2	—	1	13	19	38
Number Successful	3	2	—	1	14	20	39
Amount of Fines	£1 7 6	£0 10 0	—	£0 1 0	£9 14 6	£11 13 0	£24 13
Number of Rotation Cards for Cleansing of Common Stairs, Lobbies, and W.C.'s served on Tenants	1,018	6,796	466	576	1,685	10,541	11,400
1. (*b*) Drain Testing.							
Number of Applications for satisfaction of Dean of Guild Court	394	582	151	126	689	1,942	594
Number of first Applications to old Tenements or Systems ...	5	15	8	16	12	56	22
Number of these found more or less defective	—	5	4	10	9	28	16
Subsequent applications to old Tenements or Systems ...	5	7	2	25	14	53	9
2. Common Lodging Houses.							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ...	7	5	7	2	3	24	27
With accommodation for ...	1,815	1,579	2,213	682	943	7,232	8,080½
Number of inspections by day	147	115	142	72	142	618	818
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	9	12	9	19	1	50	38
Number of prosecutions	—	—	—	—	—	—	—
Amount of Fine	—	—	—	—	—	—	—
3. Boarding Houses for Emigrants and Seamen.							
Number measured and registered	—	—		—	—	—	—
Total number now on register ...	4	—	1	1	—	6	8
With accommodation for ...	440	—	131½	31	—	602½	742½
Number of inspections by day	40	—	17	19	42	118	240
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	—	—	—	—	3	3	3
Number of prosecutions	—	—	—	—	—	—	—

TABLE XVII.—*Continued.*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1946	1945
4. Houses-Let-in-Lodgings.							
Number measured and registered	—	—	—	—	1	1	5
Total number now on register ...	164	—	—	2	34	200	209
Number of inspections by day	1,797	—	—	2	118	1,917	2,068
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	160	—	—	—	14	174	91
Number of prosecutions	—	—	—	—	—	—	—
Amount of Fines	—	—	—	—	—	—	—
5. Farmed-out Houses.							
Number measured and registered	—	—	—	—	—	—	—
Total number now on register ...	165	—	98	—	—	263	263
Number of inspections by day	661	—	244	—	—	905	2,359
Number of inspections by night	—	—	—	—	—	—	—
Number of irregularities ...	53	—	5	—	—	58	26
Number of prosecutions	—	—	—	—	—	—	—
Amount of Fine	—	—	—	—	—	—	—
6. Ticketed Houses.							
Number ticketed for first time	—	—	—	—	—	—	—
Total number now on register ...	1,296	1,712	1,502	—	676	5,186	5,213
Number of visits by day ...	—	—	—	—	—	—	—
Number of inspections by night	—	—	—	—	—	—	—
Number of cases of Overcrowding found and warned ...	—	—	—	—	—	—	—
Number of prosecutions	—	—	—	—	—	—	—
7. Tents and Vans.							
Number of inspections	13	95	73	20	11	212	496
Number of irregularities ...	—	—	5	—	2	7	3
Number of prosecutions	—	—	—	—	—	—	—
8. Mech. Bakehouses.							
Number measured and registered	1	—	3	3	—	7	2
Total number now on register ...	65	57	54	50	30	256	257
Number of inspections	176	390	356	270	207	1,399	1,029
Number dirty	10	18	66	17	31	142	134
Number Overcrowded	—	—	—	—	—	—	—
Number defective in light or ventilation	1	1	—	—	9	11	3
Number with sanitary convenience required	—	—	—	1	—	1	1
Number with sanitary fittings choked or defective	—	—	1	2	11	14	20
Number of other nuisances ...	1	4	20	10	16	51	40
Number of prosecutions	—	—	—	—	—	—	—

TABLE XVII.—*Continued.*

Operations of Sanitary Section—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1946	1945
9. Non-Mech. Bakehouses.							
Number measured and registered	—	—	4	—	—	4	1
Total number now on register ...	37	72	21	21	20	171	170
Number of inspections	175	354	133	102	68	832	662
Number dirty	6	4	20	6	3	39	21
Number overcrowded	—	—	—	—	—	—	—
Number defective in light or ventilation	—	—	—	—	1	1	1
Number with sanitary conveniences required	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective	—	—	—	1	—	1	—
Number of other nuisances ...	3	1	8	1	1	14	5
Number of prosecutions	—	—	—	—	—	—	—
10. Mech. Factories.							
Number registered	44	—	40	24	15	123	117
Total number now on register ...	1,497	713	740	506	546	4,002	4,048
Number of inspections	4,145	2,186	2,287	1,343	1,306	11,267	6,534
Number with sanitary conveniences dirty	77	58	531	50	139	855	527
Number defective in light or ventilation	60	70	46	11	56	243	79
Number with sanitary conveniences required	12	13	7	1	3	36	13
Number with sanitary fittings choked or defective	98	175	80	23	136	512	286
Number of other nuisances ...	32	129	157	9	96	423	271
Number of prosecutions	—	—	—	—	1	1	—
Amount of Fine	—	—	—	—	£10 0 0	£10 0 0	—
Other parts of factory— Number of other nuisances ...	161	11	48	29	12	261	45
11. Non-Mech. Factories.							
Number measured and registered	20	—	7	7	8	42	15
Total number now on register ...	755	345	142	305	146	1,693	1,817
Number of inspections	3,108	691	226	952	352	5,329	3,523
Number dirty	74	15	1	48	20	158	58
Number overcrowded	—	—	—	—	1	1	—
Number defective in light of ventilation	9	8	6	3	6	32	4
Number with sanitary conveniences required	2	—	1	—	1	4	3
Number with sanitary fittings choked or defective	32	14	2	4	2	54	17
Number of other nuisances ...	29	11	13	11	8	72	46
Number of prosecutions	—	—	—	—	—	—	—

TABLE XVII.—*Continued*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1946	City 1945
12. Shops.							
Number of inspections	123	176	463	673	606	2,041	1,863
Number dirty	5	1	4	6	15	31	48
Number defective in ventilation, temperature or lighting ...	—	—	—	—	5	5	4
Number with sanitary conveniences required	4	1	1	2	3	11	13
Number with washing facilities required	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective	6	7	6	8	12	39	41
Number of other nuisances ...	50	37	159	45	23	314	128
13. Fish Restaurants.							
Number of inspections	1	21	20	41	2	85	144
Number dirty	—	2	—	1	3	6	9
Number defective in light or ventilation	—	—	—	—	—	—	1
Number requiring sanitary conveniences	—	—	—	1	—	1	—
Number with sanitary fittings choked, etc.	—	1	1	—	—	2	1
Number of other nuisances ...	2	1	10	2	4	19	16
14. Offices.							
Number of inspections	14	218	3	4	36	275	152
Number dirty	8	1	—	—	5	14	—
Number defective in light or ventilation	—	—	—	—	1	1	1
Number with sanitary conveniences required	—	—	—	—	—	—	—
Number with washing facilities required	—	—	—	—	—	—	—
Number with sanitary fittings choked or defective	1	3	—	—	1	5	3
Number of other nuisances ...	5	4	—	—	—	9	3
15. Homeworkers' Dwellings.							
Total number now on register ...	1	12	15	16	4	48	36
Number of inspections	5	9	19	—	18	51	14
Number found dirty	—	—	—	—	—	—	—
16. Bothies, Chaumers.							
Number of inspections	—	—	—	—	4	4	12
Number dirty	—	—	—	—	—	—	—
Number of other nuisances ...	—	—	—	—	—	—	—

TABLE XVII.—*Continued.*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1946	City 1945
17. Piggeries.							
Total number now on register ...	8	39	9	7	3	66	66
Number of inspections	39	89	89	35	19	271	299
Number found dirty	4	15	4	1	1	25	13
Number of other nuisances ...	1	7	2	—	—	10	4
Number of prosecutions	—	—	—	—	—	—	—
18. Offensive Trades.							
Total number now on register ...	5	6	39	—	2	52	56
Number of inspections	1	91	591	—	8	691	786
Number of irregularities ...	—	5	21	—	—	26	17
Number of prosecutions	—	—	—	—	—	—	—
19. Rag Flock Act, 1911.							
Total number of visits	—	—	—	2	4	6	74
Samples submitted for analysis	—	—	—	—	1	1	11
Certified not to conform to standard	—	—	—	—	—	—	7
Number of prosecutions	—	—	—	—	—	—	—
Number of convictions	—	—	—	—	—	—	—
Amount of fines	—	—	—	—	—	—	—
20. Broker's Premises.							
Total number of visits	14	8	8	14	7	51	117
Number dirty	1	3	2	—	—	6	8
Number of other nuisances ...	—	—	3	1	—	4	9
21. Cemeteries.							
Total number of visits	4	8	—	10	—	22	26
22. Air Raid Shelters.							
Number of inspections	1	—	—	58	30	89	629
Number dirty	4	—	—	8	10	22	5
Number defective in light or ventilation	—	—	—	—	—	—	—
Number with sanitary conveniences choked, etc.	—	—	—	9	—	9	2
Number of other nuisances ...	4	7	—	15	2	28	31

TABLE XVII.—*Continued.*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1946	1945
23. Infectious Diseases, etc.							
nfectious Diseases, visits ...	20,516	30,527	20,295	20,515	17,570	109,423	124,585
re-admissions, Country Homes, visits	—	—	—	—	—	—	—
accination visits	830	1,244	866	888	601	4,429	4,329
nstitutional census	33	4	5	—	—	42	96
ir Raid Precautions visits ...	—	—	—	—	—	—	—
24. Housing Acts.							
otal number of visits	2,682	2,076	1,338	2,113	2,498	10,707	16,263
25. Squatter's Premises.							
otal number of visits	836	311	187	1,670	571	3,575	—
6. Work of Female Inspectors.							
nder the Glasgow Corporation (Police) Order, 1904—							
(*a*) **Verminous Children.**							
Number of visits to schools ...	175	410	481	113	99	1,278	1,378
Number of children submitted for inspection	13,119	27,487	28,687	9,362	8,867	87,522	91,720
Number of children found infested	3	71	357	123	6	560	857
Number of children found infected	4,346	3,210	5,273	1,677	2,054	16,560	18,515
Number of children found with fleas	8	23	134	32	10	207	351
Number of children found dirty	312	24	731	26	156	1,249	1,514
Number of written notices ...	3	68	357	108	6	542	992
Number of children cleaned by Guardians	1,244	3,192	4,042	2,007	1,493	11,978	11,285
Number of children cleaned by officers	—	16	131	14	—	161	98
Number of special visits ...	—	—	—	—	—	—	—
Number of children examined	—	—	—	—	—	—	—
Number of children re-inspected	8,258	13,654	16,780	4,342	5,947	48,981	52,728
Number of infectious diseases	51	111	128	9	5	304	624

TABLE XVII.—*Continued.*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City 1946	City 1945
(*b*) Homes of Verminous Children.							
Number of houses inspected ...	480	2,619	3,726	755	772	8,352	7,139
Number of houses in which lodgers were found	4	—	—	—	—	4	11
Number of houses found dirty	4	3	2	8	1	18	8
Number of houses with dirty bedding	—	1	2	—	1	4	9
Number of written notices ...	—	1	4	—	2	7	7
Number of re-inspections ...	1	3	156	5	2	167	429
Number of houses cleaned ...	—	3	4	1	1	9	9
Number of bedding cleaned ...	—	1	2	—	1	4	10
(*c*) House-to-House Visitation.							
Number of houses visited first time	724	1,728	49	342	43	2,886	2,644
Number of houses in which lodgers were found	34	1	1	—	—	36	61
Number of houses found dirty	7	39	15	7	—	68	50
Number of houses with dirty bedding	2	29	5	2	—	38	30
Number of houses—Written notices...	2	2	27	—	—	31	21
Number of houses—Re-visits...	72	105	20	20	—	217	273
Number of houses found cleaned	12	40	16	8	—	76	45
Number of houses—Bedding found cleaned	4	27	5	3	—	39	27
(*d*) Re-housing Scheme Visitation.							
Number of houses visited first time	1,958	27,406	26,729	5,968	7,045	69,106	66,465
Number of houses in which lodgers were found	181	2,152	1,400	—	—	3,733	2,660
Number of houses found clean	1,740	18,185	13,230	5,071	5,817	44,043	41,735
Number of houses found fair	217	9,177	12,522	830	1,210	23,956	23,545
Number of houses found unsatisfactory	—	—	—	—	—	—	—
Number of houses found dirty	1	44	977	67	18	1,107	1,185
Number of houses with dirty bedding	—	9	136	3	1	149	203
Number of written notices ...	—	6	1,095	4	2	1,107	1,238
Number of re-visits	3	626	1,462	249	57	2,397	2,569
Number of houses found cleaned	—	50	955	56	24	1,085	1,209
Number of bedding found cleaned	—	8	126	6	1	141	205

TABLE XVII.—*Continued.*

OPERATIONS OF SANITARY SECTION—*Continued.*

	Central	Northern	Eastern	South-Eastern	South-Western	City	
						1946	1945
(*e*) Intermediate Housing Scheme Visitation.							
Number of houses visited ...	693	164	31	245	—	1,133	1,328
Number of houses in which lodgers were found	5	1	2	—	—	8	29
Number of houses found clean	555	143	25	186	—	909	908
Number of houses found fair...	135	21	4	45	—	205	394
Number of houses found unsatisfactory	—	—	—	—	—	—	—
Number of houses dirty ...	3	—	2	14	—	19	26
Number of houses with dirty bedding	1	—	1	3	—	5	15
Number of written notices ...	2	—	3	4	—	9	19
Number of re-visits	22	32	—	25	—	79	104
Number of houses found cleaned	7	3	—	13	—	23	32
Number of bedding found cleaned	1	—	—	5	—	6	15
Number of empty houses visited	8	32	60	1	—	101	88
(*e*) Other Work.							
Number of nuisances reported by Female Inspectors ...	10	5	18	10	1	44	32
Number of infectious disease cases reported by Female Inspectors	—	—	—	1	—	1	3

TABLE XVIII.—Glasgow.—POPULATION ; Births and Deaths ; Birt rates and Death-rates per 1,000 ; also Deaths under 1 Year, a Death-rates per 1,000 Births since 1861.

Year	Population	Births	Deaths	Birth-rate per 1,000	Death-rate per 1,000	Deaths under 1 Yea	
						Number	Rate per 1,00 Births
1861 ...	397,673	16,537	10,936	41·6	27·5	2,544	154
1871 ...	491,900	18,867	15,790	38·4	32·1	3,608	191
1881 ...	512,034	19,106	12,916	37·3	25·2	2,745	144
1891 ...	567,143	19,857	14,324	35·0	25·3	2,946	148
1901 ...	761,925	24,206	16,197	31·8	21·2	3,607	149
1902 ...	762,789	24,722	15,532	32·4	20·4	3,206	129
1903 ...	763,654	25,135	15,073	32·9	19·7	3,663	146
1904 ...	764,521	24,754	15,414	32·4	20·2	3,606	146
1905 ...	765,389	24,316	14,460	31·8	18·9	3,195	131
1906 ...	780,192*	24,560	14,889	31·5	19·1	3,223	131
1907 ...	781,080	24,006	15,659	30·7	20·0	3,116	130
1908 ...	781,969	23,915	15,265	30·6	19·5	3,284	137
1909 ...	782,860	23,140	15,242	29·6	19·5	3,073	133
1910 ...	783,785	22,222	13,395	28·4	17·1	2,694	121
1911 ...	784,680	21,755	13,899	27·7	17·7	3,016	139
1912 ...	785,600	22,044	13,797	28·1	17·6	2,740	124
1913‡...	1,021,789*	28,688	17,693	28·1	17·3	3,706	129
1914 ...	1,028,440	29,462	17,522	28·6	17·0	3,913	133
1915 ...	1,035,091	27,943	20,159	27·0	19·5	4,007	143
1916 ...	1,041,742	27,094	16,601	26·0	15·9	2,996	111
1917 ...	1,048,393	24,030	16,691	22·9	15·9	3,089	129
1918 ...	1,055,044	23,524	18,362	22·3	17·4	2,660	113
1919 ...	1,061,695	25,835	18,237	24·3	17·2	2,937	114
1920 ...	1,068,346	32,626	16,765	31·5	15·7	3,477	107
1921 ...	1,075,000	29,712	15,625	27·6	14·5	3,138	106
1922 ...	1,074,607	28,298	17,850	26·3	16·6	3,401	120
1923 ...	1,074,215	26,710	14,875	24·9	13·8	2,388	89
1924 ...	1,073,822	25,330	16,868	23·6	15·7	3,005	119
1925 ...	1,073,429	25,416	15,336	23·7	14·3	2,591	102
1926 ...	1,090,380*	24,541	15,731	22·7	14·6	2,548	104
1927 ...	1,089,988	23,578	15,439	21·6	14·2	2,527	107
1928 ...	1,089,595	23,649	15,701	21·7	14·4	2,525	107
1929 ...	1,089,202	22,799	17,760	20·9	16·3	2,438	107
1930 ...	1,088,810	23,322	15,455	21·4	14·2	2,355	101
1931 ...	1,088,461	22,926	15,505	21·1	14·2	2,397	105
1932 ...	1,095,263	22,732	16,071	20·8	14·7	2,542	112
1933 ...	1,103,357	21,361	14,747	19·4	13·4	2,061	96
1934 ...	1,115,590	21,822	15,234	19·6	13·7	2,140	98
1935 ...	1,119,414	22,102	15,537	19·7	13·9	2,169	98
1936 ...	1,119,600	22,273	16,406	19·9	14·7	2,429	109
1937 ...	1,119,863	22,176	16,379	19·8	14·6	2,313	104
1938 ...	1,127,825*	21,979	15,016	19·5	13·3	1,919	87
1939 ...	1,128,473	21,682	15,010	19·2	15·0	1,737	80
1940 ...	1,045,333†	20,965	17,603	19·1	16·8	1,983	95
1941 ...	1,045,333	20,365	16,301	18·5	15·6	2,267	111
1942 ...	1,045,333	20,615	14,679	18·8	14·0	1,863	90
1943 ...	1,045,333	22,363	14,824	20·3	14·2	1,825	82
1944 ...	1,050,000	22,203	14,603	20·2	13·9	2,108	95
1945 ...	1,050,000	20,294	13,941	19·3	13·3	1,379	68
1946 ...	1,075,000	23,560	14,502	21·9	13·5	1,588	67

* Extended City. ‡ Births and Deaths from 1913 are corrected for transfers.

† Civilian population only, shown for the war years

PART II.

HOSPITALS

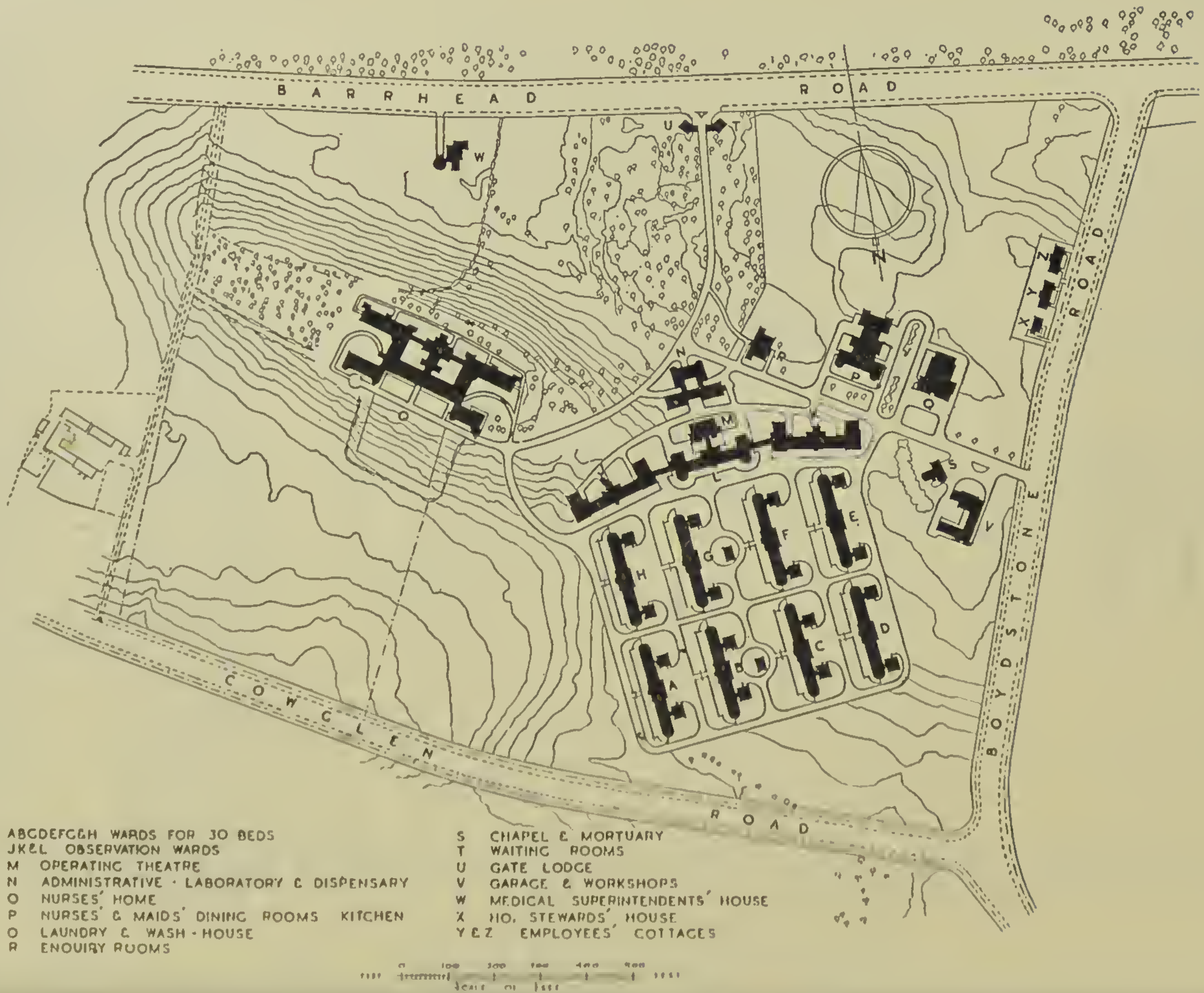
COWGLEN HOSPITAL.

It has been usual to make a record of additional hospital accommodation, and but for the war the following details of the new hospital at Cowglen would already have been given in the Annual Report. The Corporation Health Committee had authorised the provision of additional fever hospital accommodation some years before the outbreak of hostilities, and it was desirable that it should be provided to the south of the city because the only institution of this type in that district, Shieldhall Fever Hospital, was small (100 beds), old, and out-of-date, and would require to be replaced within a relatively short time. Shieldhall was the hospital provided by the former Burgh of Govan, and although it was suitably situated for Govan it was not conveniently placed for the population now resident in the rapidly extending southern area of the city. For these reasons the site for the new hospital which extends to about 65 acres, was fixed on the Barrhead Road, about four miles from the centre of the City.

The accommodation to be erected for patients in the south-eastern area was as follows :—

8 single-storey pavilions of 30 beds each	240
2 observation pavilions of 2 storeys with 40 beds each ...	80
A third observation pavilion of 2 storeys with 32 beds, connected on the ground floor with the operating theatre and X-ray room	32
Total	352

The nurses' and domestics' home was planned as a three-storey building containing 145 bedrooms for nurses and 60 bedrooms for domestics, in addition to separate suites for administrative staff. The



Sketch Plan of Cowglen Hospital.

bedrooms were to have an area of 99 sq. ft., with individual wash basins in each room, and a built-in wardrobe. On each floor there were to be two writing rooms, two reading rooms, a small library and a lounge.

Accommodation was also to be provided for a lecture room and recreation hall.

Before the buildings were completed the war broke out and they were commandeered and finished in a temporary fashion by the Government. During the war years the hospital was successively occupied by the R.A.F., the American Military Services, and finally by the British Army, in whose possession it still remains, being the principal military hospital in Scotland.

A sketch plan showing the layout of the hospital appears on the opposite page.

FEVER AND TUBERCULOSIS HOSPITALS.

The work of the Infectious Diseases Hospitals during the year 1946, although less in volume than in the previous year, was highly successful, inasmuch as the mortality rate from all causes was 5·8 per cent. Excluding cases admitted to Tuberculosis Wards, the total number treated to a conclusion in the four hospitals, Ruchill, Belvidere, Knightswood, and Shieldhall, was 11,894. Of these Ruchill was responsible for 4,559, Belvidere for 4,447, Knightswood for 1,751, and Shieldhall for 1,137.

In addition 767 cases were treated in the Sanatorium Wards at Ruchill, 58 at Belvidere, and 107 at Knightswood Hospitals.

In general the Year was one of considerable difficulty, especially for the larger hospitals, because of the shortage of nurses, and failure to recruit sufficient probationers of the right type. Staff nurses were in very short supply. In the larger hospitals the all round shortage was sometimes as much as 20 per cent. Of necessity probationer recruits had to be accepted at 16½ and 17 years of age. Some girls of this age do very well, but generally speaking they are more unstable, and less able to accept the responsibilities required in nursing acute disease ; moreover, there is more wastage in this age group than among older recruits. They are more susceptible to infection, and the change from home life may be unsettling.

These circumstances have, to some extent, interfered with the general fulfilment of the conditions set forth in the Taylor Report. Every effort was made to attract more nurses by appeal to the recruitment centre of the Ministry of Labour, and by extensive advertising, but the situation at the close of the year was steadily deteriorating.

With regard to domestic staff, the position fluctuated from time to time, but extensive employment of daily and part-time workers avoided anything in the nature of a crisis.

It is gratifying that all branches of the Staff co-operated loyally, and that the work of the hospitals was carried on with undiminished efficiency.

It seems desirable to record that the scope of the Fever Hospitals is ever widening, and that many cases, hitherto within the province of the general hospitals, were treated in the fever wards. These were notified usually as Pyrexia of unknown origin, Continued Fever, Enteric Group Infections and acute infections of the Nervous System. Their investigation called for much careful clinical and laboratory work, and was helpful, not only in keeping the Medical staff abreast of the most advanced methods of clinical and laboratory practice, but was useful in enlarging the scope of training of the Nursing Staff.

There was no striking epidemic preponderance of any one infection, but a notable feature was the continuing tendency for diphtheria admissions to decrease. The mortality rate, however, was slightly higher than the previous year, and the disease appeared to be more severe in the Southern and Eastern sections of the City.

Both Scarlet Fever and Measles were of mild type, and in this connection Dr. Napier records that, " they present a very different clinical picture " from that of former days.

STREPTOCOCCAL INFECTIONS.

Scarlet Fever.—2,324 Cases of Scarlet Fever were dealt with. There was only one death, so that the mortality rate was 0·04 per cent. The average days residence in hospital was 26. This figure is higher than might be expected, but it it to be regretted that approximately 50 per cent. of admissions are received too late to fully benefit from serum treatment, and complications, although mostly of a minor nature, extended the period of residence. In serum treated cases received in the first three days of illness, the period of residence was much reduced, and complications were rare. The importance of adequate early specific therapy cannot be overstated.

Cervical adenitis was more prevalent than in the previous year but middle ear infections showed a reduction. Among 1,102 Scarlet Fever patients treated in one hospital, only 3 mastoid operations were necessary. Better spacing of patients and appreciation of the risk that Otitis may result from cross-infection from other patients, were no doubt contributary causes.

The disease was mild and most of the cases were of the simple type. A few septic cases were met with, but no example of true toxic Scarlet Fever.

Erysipelas.—The admissions for Erysipelas were slightly fewer than in 1945. Modern therapy has reduced the need for hospitalisation. 243 cases were treated, and of these 10 proved fatal, equivalent to a mortality rate of 4·1 per cent. In this connection it should be borne in mind that many of the patients were elderly, and already suffered from affections of a serious nature. Treatment by chemotherapy was on the same lines as hitherto.

One case received in Shieldhall Hospital proved to be Herpes Ophthalmicus.

Streptococcal Sore Throat.—Many cases notified as Diphtheria were found to be suffering from Streptococcal sore throat, and were isolated in side rooms of the diphtheria wards. In these cases Penicillin locally was often used with advantage. Where there was a history of recurrent attacks and the tonsils were unhealthy, Tonsillectomy was performed.

PUERPERAL CONDITIONS.

286 patients were dealt with under the somewhat comprehensive terms of Puerperal Fever or Puerperal Pyrexia. In the former group the diagnosis was confirmed in 127 ; in 116 it was revised, often to simple abortion. In the Puerperal Pyrexia group of 43 cases there were three altered diagnosis. A noteworthy feature which emerged during recent years and which was more than ever apparent in 1946,

was the increased number of abortions, particularly of the simple or threatened type which were received under various designations. Actually 94 simple and 15 threatened abortions were dealt with. All these cases .did well. For classification in the general statistical summary, septic abortions are shown under Puerperal Fever figures, and certain complicated complete simple abortions under Puerperal Pyrexia. A considerable number of miscellaneous conditions such as as :—

General Debility,
Menorrhagia,
Post Partum Haemorrhage—non septic,
Ruptured Ectopic Pregnancy,
Menopausal symptoms,
Premature Confinement,
Fibroids,
Pyelitis,
Normal Puerperium,
Breast abscess outside the puerperium,
Peritonitis during pregnancy,

are included under " others " in the general table.

Puerperal Fever.—Of the 127 cases shown under this heading, 62 were Puerperal Sepsis, and the remainder Septic Abortions. There were 6 deaths ; one due to Ruptured Cerebral Aneurysum, and Subarachnoid Haemorrhage. Excluding this case , the mortality rate becomes approximately 4 per cent. The most common complications were severe Anaemia, Phlegmasia Alba Dolens, Parametritis, Mastitis, Pelvic Abscess, and Pyelitis.

Puerperal Pyrexia.—Among 40 such cases the commonest complications were Mastitis, Pyelitis, and Phlegmasia Alba Dolens.

Abortions.—162 Abortions were classified as :—

Threatened	15
Simple	94
Septic	53

Treatment.—During the year Penicillin became definitely established in the treatment of Puerperal conditions ; otherwise treatment was on the same lines as last year, except that Sulphadiazine was used routine in place of Sulphathiazole. 94 patients required theatre treatment. Blood tranfusions were frequently necessary, and for shock intravenous plasma with 20 per cent glucose saline was given. Dilatation and digital curettage was performed on 74 patients.

Bacteriological investigation was carried out where indicated. An outstanding feature was the rarity of successful blood culture, even in cases where blood stream invasion seemed probable. This was in striking contrast to past experience, and may possibly be attributed to the almost general use of chemotherapy by practitioners prior to the admission of the patients.

DIPHTHERIA.

The number of proved cases of Diphtheria treated to a conclusion was 1,639 ; of these 39 died, equivalent to a mortality rate of 2·4 per cent. In the Eastern and Southern areas of the City the disease was slightly more severe than elsewhere. In 582 cases notified as Diphtheria, that is 36 per cent. of the total, the diagnosis was altered, and difficulty was experienced in providing suitable isolation for them. Of almost 1,000 cases typed in the Central Laboratory :—

46 per cent. were Gravis Type,
22 per cent. were Intermedius Type,
20 per cent. were Mitis Type,
12 per cent. were Atypcal.

Among immunised persons a few cases of Diphtheria were noted. The majority were mild, but there were four fatal cases. In two of these, immunisation had been performed from 4½ to 6 years previously ; in one, a month previous to the attack, and in the fourth, two years, prior to infection. In two of these presumably the immunity had waned and in the third it had insufficient time to fully develop. One case only could be expected to have full protection. The occurrence of fatal cases among immunised children suggests the desirability of a follow up by Schick testing at suitable intervals, but any such scheme would present considerable administrative difficulties.

The striking feature of the year was again the lessened incidence, but this was associated with a slightly increased mortality. Patients with persistent positive cultures were treated locally with Penicillin with some measure of success, but in a few Tonsillectomy had to be performed. Dr. Napier of Shieldhall Hospital reports that " A number of grave cases of diphtheria were met with in the early part of the year, raising the mortality rate from zero in 1945 to 3·8 per cent. in 1946. Later in the year I was impressed with the value of penicillin in severe diphtheria, and am giving it further trial."

MENINGITIS.

763 cases were notified as Cerebrospinal Fever, but the diagnosis was only confirmed in 237 or 31 per cent. The mortality rate showed a considerable reduction to 13·1 per cent. 138 of the patients were under five years of age, and the mortality in this group greatly exceeded that in older patients.

Among the cases in which the diagnosis was revised were a wide variety of miscellaneous medical and surgical conditions. There were many examples of Tuberculous Meningitis, and a few cases of Pneumococcal Meningitis. Several examples of Osteomyelitis were met with and these yielded dramatically to penicillin.

An interesting case received in Shieldhall Hospital was one of Undulant Fever.

PNEUMONIA.

Under the notification of Pneumonia, 3,237 patients were received and the diagnosis was confirmed in 2,245. The corresponding figures for 1945 were 3,159 and 2,407. The mortality rate in Acute Primary Pneumonia was 9·1 per cent., against 8·8 per cent. in 1945.

In 49 cases of Acute Influenzal Pneumonia the mortality was 14·2 per cent.

As in 1945, again in 1946, a large number of diverse general medical cases were received as " pneumonia," and among them there were many cases of Pulmonary Tuberculosis, both early and advanced, and these created problems of isolation, as sanatoria beds were rarely available without long periods of waiting. Pleurisy with effusion was a very frequent finding, and for lack of other accommodation these patients were for the most part nursed in Pneumonia wards. Their stay in hospital was necessarily lengthy. In the adult wards, from time to time, the beds were largely occupied by patients in the older groups. In one female ward for a considerable period the average age of occupants was above 60.

Sulphadiazine, with or without Penicillin, was the routine treatment.

INFECTIONS OF THE BOWEL

Enteric Group.—Altogether 132 cases were notified in this group. In 78 the diagnosis was confirmed ; of these 33 were Typhoid and 45 Paratyphoid infections. Both diseases showed an increase over the figures for 1945. The mortality rate in Enteric Fever was 9·1 per cent. ; in Paratyphoid 2·2 per cent. A few examples of the carrier state were encountered. One patient was cured by excision of the gall bladder. In another the condition yielded to Penicillin in large doses, plus Sulphadiazine.

Dysentery.—Dysentery formed the largest group, and 443 confirmed cases were dealt with. There were 6 deaths, equivalent to a mortality rate of 1·3 per cent. The disease was much less prevalent than in 1945, when 1,116 cases were received in hospital.

Sonne infections were most numerous. They were mostly mild. Many Flexner cases were encountered, and both types yielded readily to Sulphasuccidine or Sulphaguanidine.

Gastro-Enteritis.—Gastro-enteritis in young children was less prevalent than in 1945, but a considerable number of cases were dealt with. In 81 cases admitted to one of the Hospitals under this heading, the diagnosis was confirmed in 47, and in 8 of these Broncho-pneumonia was already present on admission. In 34 the diagnosis was revised. The mortality, as in previous years, was heavy ; 15 deaths occurred among the confirmed cases, equivalent to a rate of almost 32 per cent. Of the fatal cases, 5 were moribund when admitted. Most of the patients received reasonably early did well. In treatment Sulphadiazine, together with Penicillin, appeared to be of some value, and associated chest complications were less numerous than hitherto. Usually treatment was initiated with gastric lavage, followed by saline only for twelve hours. For these infants the most exacting nursing care was necessary.

Measles.—942 patients were treated, and of these 18 died, giving a mortality rate of 1·9 per cent. The disease was mild and chest complications less numerous and less severe. Otitis also was less frequent. Sulphonamides and Penicillin were of great value in treatment.

Rubella.—119 cases of Rubella were dealt with ; all recovered.

Whooping Cough.—Only 143 cases of Whooping cough were received. The mortality rate was 11·4 per cent. Many of the patients already suffered from complications on admission. Routine x-ray examinations of chest were carried out, so that the presence of Tuberculosis or collapse of lung should not be missed.

Chickenpox.—166 cases were received. There was one death in large measure due to another coincident infection.

Anthrax.—There was one case which recovered.

Phthisis.—932 cases were treated in the Tuberculosis Pavilions of the Fever Hospitals. The death rate was 20·4 per cent.

Other Diseases.—Other diseases treated during the year were responsible for 2,824 admissions. No single group called for special mention, unless the cases of Tuberculosis of various types, which numbered 227 and were admitted under other designations.

Among the infections included under other diseases were small groups of Malaria, Mumps, Influenza, Poliomyelitis, Polioencephalitis, and various skin diseases, together with a large number of general medical and surgical conditions, in which for various reasons transfer was not considered advisable.

Laboratory Work.

As indicated in last year's report, Hospital Laboratory work continues to increase year by year. The Central Laboratory was most helpful in typing diphtheria bacilli, and expeditiously furnishing reports to the hospitals, and the City Bacteriologist contributed valuable advice on technical problems. The Pathological and Biochemical Departments of Stobhill Hospital Laboratory willingly provided expert reports on many specimens. This co-operation with the Central Laboratory and the Laboratories of Stobhill Hospital was of great value to the Fever Hospitals.

Venereal Diseases.

The number of cases treated in the wards of Ruchill and Belvidere Hospitals was 317, considerably less than in the previous year. There were 6 deaths, 4 in Ruchill and 2 in Belvidere, a mortality rate of 1·9 per cent. Of 163 patients treated (171 separate infections) in Belvidere 41 were under 25 years, and 130 over 25 years.

They were classified as follows :—

Syphilis—	
Primary dark ground positive wassermann negative	13
Primary wassermann positive	36
Secondary	22
Latent first year	1
All later stages	23
Congenital	1
Extragenital	2
Gonorrhoea—	
Acute	40
Chronic	4
Soft Chancre	12
Non-specific venereal infection	12
Other than venereal	5
	171

The average duration of residence was—

Syphilis	24 days
Gonorrhoea	22 ,,
Soft Chancre	16 ,,
Non-specific venereal infection	32 ,,
Other than venereal	6 ,,
Mixed infections	16 ,,

During the year Penicillin was freely available, and was widely used in all types of cases. Primary dark ground positive, wassermann negative, cases received 2,400,000 units before discharge to outdoor clinics for further anti-syphilitic treatment with N.A.B., etc. All secondary cases received 10,000,000 units while in hospital before discharge to the clinics for further observation and treatment. The results were extremely satisfactory.

In Gonorrhoea those hospitalized were mainly relapsed or complicated cases, and they were treated with Penicillin and Sulphadiazine. Fever treatment in a limited number of Sulphonamide and Penicillin resistant cases was continued with satisfactory results.

FEVER HOSPITALS—STATEMENT OF CASES TREATED ACCORDING TO SEX DATA BASED ON DISMISSALS AND DEATHS FOR YEAR 1946.

	Admitted.		Dismissed.		Died.		M'tality	Av. Residence.		Ages. Dismissals & Deaths.			Altered	Ruchill.		Belvidere.		Knightswood.		Shieldhall.	
	M.	F.	M.	F.	M.	F.	per cent.	Dismiss.	Deaths	—5	—15	15+	Diagnosis.	Dismissals.	Deaths.	Dismissals.	Deaths.	Dismissals.	Deaths.	Dismissals.	Deaths.
Typhus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	13	17	11	19	3	—	9·1	70	12	4	10	19	34	11	2	12	1	7	—	—	—
Paratyphoid Fever	23	22	23	21	—	1	2·2	41	2	10	18	17	20	12	—	16	1	16	—	—	—
Continued and Undefined Fever	2	—	—	—	—	—	—	—	—	—	—	—	118	—	—	—	—	—	—	—	—
Puerperal Fever	—	126	—	121	—	6	4·7	22	9	—	—	127	116	—	1	121	5	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	1,041	1,232	1,068	1,255	1	—	0·04	26	13	689	1,438	197	226	508	1	1,102	—	378	—	335	—
Diphtheria and Mem. Croup ...	642	812	718	882	20	19	2·4	46	8	481	814	344	582	773	8	539	21	84	2	204	8
Erysipelas	103	141	103	130	1	9	4·1	15	9	4	14	225	87	197	10	2	—	24	—	10	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebrospinal Fever	134	110	115	91	15	16	13·1	29	18	138	36	63	526	150	27	44	4	10	—	2	—
Trachoma	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica	2	—	2	—	—	—	—	93	—	—	1	1	—	1	—	1	—	—	—	—	—
Acute Polioencephalitis	1	—	—	—	1	—	100·0	—	25	—	1	—	—	—	—	—	1	—	—	—	—
Acute Poliomyelitis	—	2	—	2	—	—	—	25	—	—	2	—	4	1	—	—	—	1	—	—	—
Acute Primary Pneumonia ...	1,511	753	1,319	676	135	66	9·1	28	9	876	344	976	970	772	93	503	55	370	28	350	25
Acute Influenzal Pneumonia ...	30	20	25	17	4	3	14·2	23	11	1	7	41	22	14	1	10	3	15	3	3	—
Malaria	38	—	41	—	—	—	—	18	—	—	—	41	17	27	—	6	—	7	—	1	—
Dysentery	210	206	232	205	4	2	1·3	29	58	297	51	95	65	202	4	198	1	37	1	—	—
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	96	67	71	55	20	12	20·2	48	51	24	20	114	—	51	21	38	5	33	4	4	2
Other forms of Tuberculosis ...	62	81	6	8	55	71	97·1	48	11	49	49	42	—	7	80	4	29	1	10	2	7
Measles	460	445	474	450	9	9	1·9	22	10	731	147	64	91	353	8	252	3	242	6	77	1
German Measles	45	77	43	76	—	—	—	12	—	22	49	48	6	15	—	36	—	53	—	15	—
Whooping Cough	90	109	53	76	6	8	11·4	38	8	119	24	—	34	39	6	56	5	28	3	6	—
Chickenpox	95	63	101	64	1	—	0·6	28	14	94	50	22	22	7	—	149	1	7	—	2	—
Mumps	20	11	18	11	—	—	—	17	—	8	4	17	7	9	—	13	—	7	—	—	—
Venereal Diseases	174	127	170	141	3	3	1·9	42	84	20	6	291	—	150	4	161	2	—	—	—	—
Babies with Mothers	3	4	1	2	2	2	57·1	18	1	7	—	—	—	1	—	1	4	—	—	1	—
No apparent Disease	62	50	63	48	—	—	—	11	—	61	27	23	—	29	—	38	—	2	—	42	—
Others	1,081	1,087	971	1,016	106	84	8·7	24	18	948	412	817	—	810	97	833	54	319	35	25	4
Influenza	59	45	57	38	1	2	3·1	16	25	7	39	52	—	35	1	52	2	2	—	6	—
Puerperal Pyrexia	—	40	—	40	—	—	—	21	—	—	—	40	3	—	—	40	—	—	—	—	—
Impetigo	5	5	5	5	—	—	—	21	—	8	2	—	—	3	—	3	—	2	—	2	—
Mothers with Babies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pemphigus Neonatorum ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified (Staff)	2	42	2	41	—	—	—	26	—	—	—	43	—	7	—	20	—	13	—	3	—
Anthrax	1	—	1	—	—	—	—	40	—	—	—	1	—	1	—	—	—	—	—	—	—
Infective Jaundice	—	—	1	—	—	—	—	75	—	—	—	1	6	—	—	—	—	1	—	—	—
Enteric Contacts	10	—	10	—	—	—	—	13	—	—	—	10	—	10	—	—	—	—	—	—	—
Total	6,015	5,694	5,704	5,490	387	313	5·8	29	15	4,598	3,565	3,731	2,956	4,195	364	4,250	197	1,659	92	1,090	47
Phthisis	354	574	299	442	99	92	20·4	150	106	25	102	805	—	642	125	37	21	62	45	—	—
Phthisis (Unclassified)	—	—	—	1	—	—	—	234	—	—	—	1	—	—	—	—	—	1	—	—	—

MEARNSKIRK HOSPITAL.

During 1946, the hospital suffered a serious loss in the death of the Physician Superintendent, Dr. John A. Wilson, O.B.E., who passed away on 30th July, after a long and trying illness during which he had remained at his post, with almost superhuman fortitude, to the end. Dr. Wilson was the first Superintendent of Mearnskirk and since his appointment in 1928 had supervised the building and the development of the hospital which culminated in a splendid war effort through which large numbers of naval patients received treatment in many forms under his administration. The greater part of Dr. Wilson's post-graduate career had been devoted to the study and treatment of pulmonary tuberculosis and his interest in this subject was well known throughout and furth of Scotland. Dr. Wilson was also an ardent research worker, particularly in the fields of bacteriology and pathology. His long experience, which made him a valued guide, his work which was an inspiration to all and his kindly understanding of patients and staff, will be greatly missed throughout the hospital.

In August, the hospital sustained another serious blow of a different kind. On the 31st of the month, the hospital, as had been anticipated, was released from the Emergency Medical Service, and the departure of the naval patients, who had formed the main focus of interest since 1940, was accompanied by a further loss of nursing staff. The evacuation of the naval patients was darkened in its last days, by the loss of the Naval Medical Liaison Officer, Surgeon Commander Gwynn-Jones, who met a tragic death on service, when the naval air ambulance, in which he was accompanying a patient to the South, crashed in the hills of Cumberland, with the loss of the entire crew and passengers.

The end of hostilities in 1945 had been followed by a gradual but steady loss of nursing staff, especially from the ranks of the Civil Nursing Reserve. The closure of naval establishments in the Clyde area led to a decline in the admissions of service patients and this caused an acceleration in the rate of departure of nurses, which became an avalanche in the spring and summer of 1946. By September, the nursing position was critical, but the decline was partially stayed by the appointment of male student nurses and a larger number of male probationer assistant nurses.

This rather depressing phase of the hospital's post-war history was brightened by the opening in November of a new Thoracic Unit under the able guidance of Mr. Bruce Dick. By the end of the year, there was a firm conviction that the worst was over and that we might look forward confidently to a new era and the re-generation of Mearnskirk. There were, however, no illusions regarding the seriousness of the staffing problem and it was realised that the re-generation would be slow.

During the year there was a marked fall in the number of patients admitted due to the steady decline in the service admissions and their ultimate cessation on 31st August. This resulted in the admissions being down by 2,719 as compared with last year. Unfortunately, as already indicated, the liberation of emergency medical service beds was accompanied by a sharp fall in the number of nurses available, either through their resignation or because of their compulsory transfer to emergency medical service hospitals. There was no equivalent rush of student nurses to fill the vacancies on the nursing staff and the beds liberated could not, therefore, be freely used for the accommodation of the large numbers of tuberculous patients awaiting admission. Despite this, there was an increase of 50 in the number of tuberculous patients admitted during the year and for this, credit is in no small measure due, to the few stalwart Sisters and Nurses who, in spite of all difficulties, manned the wards for the treatment of pulmonary phthisis and with great energy and patience surmounted the many obstacles in the path of their duty.

The total number of admissions and dismissals or deaths is shown in the following table :—

	Tuberculous Patients.	Service Patients.	Civilian Scheme Patients.	Total.
In residence at 1st January ...	311	209	—	520
Admitted during the year ...	350	1,824	73	2,247
Dismissed or Died	367	2,031	73	2,471
In residence at 31st December ...	294	2	—	296

The variety of conditions dealt with are shown in the following table :—

Tuberculosis	350
Ear, Nose and Throat Conditions	177
Eye Conditions	77
Medical and Surgical Conditions	1,643
Total	2,247

During the year, 2,450 out-patient attendances were recorded as follows :—

Tuberculous Patients	1,522
Ear, Nose and Throat Conditions	65
Eye Unit	173
Physiotherapy Department	346
Medical and Surgical Conditions	344
Total	2,450

The E.M.S. patients have been reported elsewhere and no attempt will be made to discuss them here in any detail.

Of the 367 tuberculous patients who were dismissed or died in hospital, 289 had pulmonary tuberculosis and 78 had non-pulmonary lesions. Of the total, 239 completed the prescribed course of treatment and of these, 16 were dismissed with the disease healed, 179 were quiescent or much improved, and 44 showed some improvement. Of the remaining 128 patients, 56 died, 30 were dismissed at their own request or at the request of relatives, with the disease still active, though improved in 12 cases. Forty-two were transferred to other institutions with the disease still active. This latter group included 35 patients admitted for Thoracic Surgery and returned to their own hospitals after operation. Of the deaths, 48 occurred in patients with advanced phthisis, 1 resulted from sarcoma of the lung, 2 occurred after thoracoplasty and 1 resulted from ether convulsions in a case of pulmonary tuberculosis undergoing operation for acute appendicitis. The remaining 4 deaths occurred in patients with non-pulmonary lesions. Of these, 2 died from tuberculous meningitis and 1 from amyloid disease in a patient with advanced tuberculosis of the hip and a faecal fistula through the hip joint. One orthopaedic case died from the late effects of encephalitis.

The average duration of residence for the tuberculous patients was 335 days.

In the interests of brevity in these days of paper shortage, the work of the hospital is summarised, as in previous years, in the following brief account of the work of its main Departments.

Surgical Operations.—There was a further fall in the amount of surgical work undertaken in the operation theatres, the fall corresponding with the decline in the number of service patients. In all, 1,244 procedures were carried through and this total included 531 major operations, 195 minor operations, 77 theatre examinations (cystoscopy, proctoscopy, etc.), and 441 major surgical dressings. The types of operations and the category of the patients treated are shown in the following table :—

Operations.	Tuberculous Patients.	Service Patients.	Civilian Scheme Patients.	Staff.	Total
Major Operations—					
Abdominal ...	4	80	—	—	84
Rectal ...	—	15	—	—	15
Genito-Urinary	1	28	—	—	29
Gynaecological	—	6	—	—	6
Orthopaedic	25	45	—	—	70
Ear, Nose and Throat ...	18	130	—	2	150
Ophthalmic ...	—	23	48	—	71
Thoracic ...	61	2	—	—	63
Miscellaneous	—	43	—	—	43
Total ...	109	372	48	2	531
Other Procedures—					
Minor Operations	28	130	—	37	195
Theatre Examinations ...	2	75	—	—	77
Theatre Dressings	22	16	—	403	441
Total ...	52	221	—	440	713
Grant Total	161	593	48	442	1,244

Anaesthetics to the number of 716 were administered, of which 376 were general, 78 were spinal and 262 were local. Of the total, 531 were for major operations. This is shown in the following table :—

Anaesthetic.	Major Operations.	Minor Operations.	Theatre Examinations.	Theatre Dressings.	Total.
General—					
Inhalation ...	150	51	2	4	207
Intravenous ...	120	43	5	1	169
Spinal	65	—	13	—	78
Local	196	60	6	—	262
Nil	—	41	51	436	528
Total ...	531	195	77	441	1,244

The theatre staff also undertook 958 minor operative procedures and surgical dressings in the treatment of out-patients and members of the staff.

Thoracic Unit.—The conversion of one of the hospital's cubicled pavilions to a fully equipped modern unit for Thoracic Surgery was completed in November, 1946, and the unit was unofficially opened on the 25th of the month by the admission of 14 patients transferred from the sanatorium at Ruchill. During the five-week period to the end of the year, 63 patients (42 females and 21 males) were admitted to the unit and 52 were dismissed, leaving 11 in residence at 31st December. Of the total admissions, 49 came from other hospitals and 14 were transferred from the pulmonary wards at Mearnskirk. In all, 60 of the patients received surgical treatment before the end of the year.

The splendid work being carried out in this unit under the guidance of Mr. Bruce Dick will greatly enhance the prestige of the hospital as a Chest Centre and will be the subject of a fuller report next year.

Plaster of Paris Work.—In the plaster room, 352 plaster splints were made. These included 13 spinal jackets, 57 hip spicae, 222 leg plasters, 56 arm plasters and 4 plaster beds. In addition, 23 casts were made as a first stage in the construction of certalmid or celluloid splints.

Splint Department.—In this department, splints and other orthopaedic appliances were made, repaired or adjusted for civilian and service patients resident in hospital or attending as out-patients. During the year, 141 new splints were constructed in certalmid, celluloid, iron, leather or aluminium. Boots were altered in 391 cases by raising or tilting soles, or by fitting metatarsal bars or T-straps. Treads were fitted to walking skates in 28 cases. Other orthopaedic appliances and fittings to the number of 154 were made, including 24 pairs of crutches. Twenty-seven pieces of hospital equipment were turned out including 1 irrigation stand and 26 X-ray film holders. In addition, major orthopaedic apparatus was erected, dismantled or adjusted in 104 cases and 414 repairs to splints, boots and other appliances were carried out.

X-*ray Department.*—In this Department there was a fall in the total number of examinations. This was confined entirely to the service group. The other groups showed a rise. In all, 2,684 in-patients, 680 out-patients and 552 members of staff were examined. Skiagraphs to the number of 7,030 were taken and 2,157 screen examinations were made. Of the patients, 1,895 were tuberculous subjects and of these 561 attended as out-patients. The total work carried out is shown in the following table :—

	Tuberculous Patients.	Scheme Patients.	Staff.	Total.
In-patients	1,334	1,350	536	3,220
Out-patients	561	119	16	696
Screenings	1,944	178	35	2,157
Skiagraphs	2,969	3,276	785	7,030

Dental Department.—The dentist visited the hospital weekly and examined 433 patients, of whom 385 were tuberculous subjects. Of the total, 279 received dental treatment and of these, 121 required extractions, 255 teeth being extracted, while 158 were treated conservatively. Of these, 16 required two types of treatment making a total of 174 conservative treatments. The anaesthetics used for patients who had extractions were local in 107 cases and general in 14. Of the extractions, 109 were carried out in the Dental Department and 12 in the wards. Of the 174 conservative treatments, 3 had the treatment carried out in the ward. The conservative work consisted of 92 fillings in 80 patients, 94 dressings in 63 patients and 31 scalings in 31 patients. In addition, artificial dentures were supplied in 3 cases and an artificial denture repair in one case. The work of the department is shown in the following table :—

				Extractions.			Conservative Treatment			
	Number of Patients.	Examined	Treated.	General Anaesthesia.	Local Anaesthesia.	Total.	Fillings.	Dressings.	Scalings.	Total.
Tuberculous Patients	385	143	242	13	89	102 (229)	76 (88)	57 (87)	23 (23)	156 (198)
Scheme Patients	48	11	37	1	18	19 (26)	4 (4)	6 (7)	8 (8)	18 (19)
Total	433	154	279	14	107	121 (255)	80 (92)	63 (94)	31 (31)	174 (217)

(In the above table the number of patients is shown. The figure in brackets indicate the number of extractions or treatments).

Laboratory.—There was a fall in the number of specimens submitted to the laboratory for examination. This fall was, as would be expected, due to the fall in the number of service patients. A total of 3,787 specimens were submitted for bacteriological or pathological investigation as against 5,337 in 1945. Of the total, 1,899 or just over 50 per cent. were for civilian patients, while 1,888 were for service cases. The bulk of the specimens were for bacteriological investigation.

Physiotherapy Department.—On 1st January, there were 78 patients undergoing physical treatment. During the year, 402 new patients were accepted for treatment and 451 were discharged, leaving 29 still under treatment on 31st December. Of the 480 patients who received treatment, 310 were service cases and the remaining 170 were tuberculous patients or members of the staff. In all, 18,819 treatments were given as follows :—Massage, 3,568 ; Medical gymnastics, 10,667 ; Medical electricity, 593 ; Heat therapy, 3,556 ; Ultra-violet ray therapy, 435.

Education.—During the year, 101 pupils were admitted to the school and 121 were discharged. The average number of scholars on the roll was 83 with an average attendance of 80. These received half-time instruction in the subjects of the ordinary school curriculum from three full-time teachers. The work was entirely individual, the scholars being for the most part in bed and their ages ranging from 5 to 16 years. The time devoted to educational handwork was proportionately greater than in the ordinary school.

ROBROYSTON HOSPITAL.

Once more reasons of economy dictate that the Annual Report for 1946 should be relatively short. It is hoped, however, that sufficient detail is presented to give a fair estimate of the scope and volume of the hospital's work.

Accommodation and staffing.—There were no great changes in the accommodation available in the hospital. Towards the end of the year, Pavilion No. 1 was emptied and its patients dispersed throughout other wards. Reconstruction of the building to adapt it for use as a second maternity pavilion was practically completed at the end of the year. When opened it will raise the available accommodation for midwifery to 80 beds, with all necessary annexes.

Apart from the obstetrical unit, staffing continues to be the major administrative problem, the position at the year's end being critical. Too high praise cannot be given to the staff which has carried on so nobly in conditions of great difficulty.

It should be realised that these unfavourable conditions must be ameliorated before the considerable number of empty beds are again made available to the public. Whether or not the relative plenitude of nursing staff for the maternity unit will be maintained in the future remains to be seen.

From all departments a total of 3,363 patients were discharged, 999 of these being babies born in the maternity unit. The only major incident of the year was an explosive outbreak of dysentery affecting a large proportion of both the patients and of the staff.

Pulmonary Tuberculosis.—The appended table is intended to give some idea of the state of the patients as they were assessed on admission :—

	Total.	Died.
Lesions classified as early	56	1
Lesions classified as intermediate ...	80	—
Lesions classified as late	230	106
	366	107

There is very little to add to reports of previous years. The treatment of pulmonary tuberculosis continues to be the greater portion of the hospital's work and it can be said that the resident and consulting staff have the experience, the technique, and the equipment to follow the most modern trends in treatment. Surgery continues to play a major part for all types of lesion. Artificial pneumothorax was indicated and attempted in 122 instances. No pleural space could be found in 22 patients, and for a further 20 the resultant pneumothoraces were not therapeutically effective and so were abandoned after a very short period. Eighty thoracoscopic examinations were undertaken and as a result 60 pneumothoraces were much improved. There were no serious complications of this operation. Phrenic interruption was undertaken, either alone or as an ancillary measure, for either contralateral or unilateral lesions, in 86 instances. Thoracoplasty, as in past years, proved most reliable and was the operation of choice in 67 instances. As a primary measure, it justified the high hopes expressed in last year's report, but in a majority of patients the operation represented the ultimate step in a series of measures designed to secure sputum conversion and cavity closure. In all, 234 thoracic operations were undertaken.

A survey of 75 patients treated by artificial pneumothorax while resident in Robroyston Hospital who were followed up for 5 years by Dr. J. B. Morrison may make an interesting addendum. The full paper cannot, of course, be given, but among other things it was proved that in over 90 per cent. of the pleural effusions which developed in the course of treatment, the cause was proved by careful laboratory technique to be M. tuberculosis. Other investigations seemed to prove beyond any doubt that even the most detailed haematological tests were of infinitely less value in assessing the patients' condition than was a careful clinical examination. A further interesting feature of the survey was that 42 per cent. of patients having pneumothorax treatment in the presence of bilateral disease definitely benefited from it. Disquieting was the finding that of the 75 patients surveyed one third were dead within the 5 years, usually from the spread of the disease to the better lung.

Non-pulmonary Tuberculosis.—Below is the usual table summarising the work on non-pulmonary tuberculosis, and giving in addition a summary of all the operative work of the hospital.

	Total.	Deaths.	Operation
Tuberculosis of spine	86	5	2
Tuberculosis of hip	30	1	2
Tuberculosis of bones other than spine	14	—	—
Tuberculosis of joints other than hips	46	—	14
Genitourinary tuberculosis	46	5	102
Abdominal tuberculosis	10	2	3
Tuberculosis of lymphatic nodes	5	2	1
Multiple and miscellaneous tuberculous lesions ...	4	3	—
Non-tuberculous disease or admitted for observation	10	1	21
Operations on thorax	See separate par.		234
Operations connected with puerperal sepsis and abortions	See separate par.		282
Operations connected with obstetrical unit	See separate par.		272
Total	251	19	933

Towards the end of the year, Dr. W. M. Borthwick, Senior Assistant Surgeon, completed a personal survey of 500 consecutive male patients suffering from either genital tuberculosis or renal tuberculosis, or a combination of both types of lesion. He proved beyond reasonable doubt that the renal and genital lesions are closely associated and that the renal tuberculosis precedes the genital lesion, though of itself it may be symptomless. This investigation is almost certainly the largest one of its kind carried out in a British hospital and has gone a very long way to establish the pathology of the two conditions.

Radiology.—Towards the end of 1946 it became evident that the X-ray unit which was installed in 1934 was in need of considerable renovation. The necessary survey, when it took place, revealed that the acquisition of a complete new unit was desirable, capable of undertaking, in addition, the work of the maternity unit A complete overhaul has however kept the unit working at fairly high efficiency. The total number of plates taken was 3,661, of which 696 were necessary for the supervision of the health of the nursing staff. Examinations by the fluorescent screen totalled 3,780.

Puerperal Sepsis and Puerperal Pyrexia.—The volume and scope of the work of this unit is summarised below. The same unit is responsible for the work referred to in the next section of this report, as was explained in the report for 1945.

	Total.	Deaths.
(1) Puerperal sepsis following birth of a viable child ...	126	3
(2) Puerperal sepsis following birth of non-viable child ...	130	1
(3) Other diseases	42	1
Total	298	5

Very little comment is necessary. The four deaths referred to in lines (1) and (2) were unavoidable. Two patients were admitted moribund and died within 12 hours of admission and another woman failed to respond to any treatment, being in the 4th day of a generalised peritonitis. The remaining fatality was due to a B. Welchii infection of the pelvic contents and of the legs, occurring in the course of an abortion. The death rate of 1·5 per cent. is unquestionably the lowest ever recorded by the unit since its opening in 1930. Treatment was on modern lines, and fullest use was made of sulphonamides and penicillin separately and in combination. The value of a high initial dosage was amply proved. In acute mastitis it was found possible to suture the drainage incisions as early as the 4th day in many patients. The saving of time and trouble, dressings and pain, to everyone concerned is too obvious to require explanation.

Abortions.—As was explained in the previous report, it is now accepted practice to treat abortions without infection in the pavilion whose task it was in the past to treat puerperal sepsis and pyrexia.

No obvious infection took place in any instance. The total number treated was 334, divisible as follows :—

Threatened abortions	...	57
Inevitable abortions	...	17
Incomplete abortions	...	200
Complete abortions ...	...	57
Ectopic pregnancies	...	3
Total ...	...	334

There were no deaths.

Pneumonia.—Pneumonia in females continued to be treated in a ward of the Emergency Hospital. The numbers dealt with and their classification is given below.

	Total.	Deaths.
(1) Acute primary pneumonia	95	5
(2) Bronchopneumonia	25	6
(3) Tuberculous diseases	52	4
(4) Respiratory disease not in 1, 2 or 3	25	2
(5) Various diseases	25	3
Total	222	20

Treatment continued to be on recognised lines and in all, except the aged, was very successful. Complications were practically absent. It is again noticeable that about half of the admissions did not suffer from pneumonia.

Maternity Unit.—The pavilion adapted for use as a maternity unit, and which was given brief mention in last year's report, has now been proved to be very satisfactory. Remarkably few further modifications, and these only of a minor nature, have been found necessary. An adjacent pavilion is being similarly modified and when completed, should double the existing accommodation.

The data below briefly outlines the work of the unit during 1946.

Total number of admissions during 1946	969
Total number of deliveries during 1946	872
Total number of discharges during 1946	993
Total number of children discharged	999
Antenatal patients discharged before delivery	88
Mothers and babies admitted together	9
Total livebirths	834
Total stillbirths	32
Abortions	6
Maternal deaths	2
Neonatal deaths	12

Maternal death rate ... 2·2 per 1,000 confinements.
Neonatal death rate ... 14 per 1,000 livebirths.
Stillbirth rate ... ... 36 per 1,000 viable births.

Operations—Major 151 ; Minor 121.

Smallpox.—The usual precautions continued to be taken but on only one occasion was the unit called to stand by. No patient was, however, admitted during the year.

Laboratory.—The increasing work of the hospital, and its diversity, is reflected in the work of the laboratory where the number of investigations made during the year totalled 8,677. These are given below.

For M. tuberculosis in sputum	5,496
pleural fluids	58
C.S. fluids	27
Gastric juice	20
Urines	294
For M. tuberculosis and various infections in faeces	1,065
Throat and nasal cultures	90
Uterine and cervical cultures	378
Urinary cultures	103
Urinalysis	842
Blood and C.S.F. biochemical investigations	234
Test meals	22
Miscellaneous	48
Total	8,677

Dental Department.—During the year 704 patients received attention from the Visiting Dental Surgeon. Of these 465 patients required active treatment made up as follows :—641 extractions, 118 fillings, 96 dressings and 26 scalings. Six patients were fitted with dentures and two patients required repairs to their dentures.

PART III.

OUTDOOR MEDICAL SERVICES AND GENERAL HOSPITALS.

Outdoor Medical Services.—The following table shows the work done by the medical staff as compared with the four previous years :—

	Visits.	Consultations.
1942	35,821	113,841
1943	36,861	107,238
1944	35,517	100,380
1945	34,502	100,550
1946	36,374	105,897

The total amount of service expressed in units was 199,690, as compared with 189,666 in 1945, an increase of 5·3 per cent. Of the total services rendered, 184,178 units represented the work of the medical officers on full-time service, a proportion of 92·1 per cent. (One consultation at a clinic is reckoned as 1 unit, one domiciliary visit 2½ units, and one session at a Welfare Department 2½ units).

It will be seen from the figures that the amount of work carried out by the medical officers during the later war years remained fairly steady, but for comparison attention is drawn to the figures for the peak year of 1938, when the number of visits paid was 74,944 and there were 300,048 consultations at clinics. The total number of units of service was 488,402. The relatively small increase in the number of visits and consultations during 1946 is hardly significant although it may be the beginning of an increased demand on the Outdoor Medical Services. During 1938 the pressure of work and the overcrowding at clinics was excessive and it is to be noted that the number of full-time medical officers at that time was 31 compared with 22 at present.

Hospital accommodation has presented constant difficulties and this is intimately linked up with the shortage of nurses and the situation in this respect is steadily worsening. The waiting list of patients has in consequence increased, particularly in regard to female medical cases and mental observation cases. The supervision of this waiting list and the assessment of priority for admission are duties undertaken by the outdoor medical officers and the nursing staff. This has become a considerable task.

General Hospitals.—The following table shows the average daily number of patients in residence in the four general hospitals and the highest and lowest numbers :—

	Stobhill	Eastern District	Western District	Southern General
Average daily number in residence in 1946	1,336	256	223	783
Highest number in residence in 1946	1,406	287	252	858
Lowest number in residence in 1946	1,258	231	174	711
Residence on 31st December, 1946	1,266	258	206	756

On 31st December, 1945, the number of patients in residence in hospital was 2,518, whereas the corresponding figure at the end of 1946 was 2,486. The number of admissions in 1946 was 30,713, which was 2,053 less than the admissions during the previous year. The last pre-war figure was 28,192 in 1938.

The proportion of deaths occurring in hospital for many years averaged between 13 and 14 per cent., and in 1946 it was 10·2.

At the end of the year out of a total of 2,486 patients in the four general hospitals, there were only 3 Service and 6 E.M.S. Scheme cases. In addition to the accommodation in the four general hospitals, Corporation patients were also treated at Gartloch and Lennox Castle Institutions. At the end of the year there were 122 such patients in Gartloch and 66 in Lennox Castle. But for the additional accommodation provided in these two institutions the waiting list position would have become unmanageable.

It will be observed that the number of cases delivered in the four general hospitals during the year was 5,384 as against 5,388 in 1945. The Maternity Unit at Lennox Castle, however, was in full working order and during the year there were 765 births in that institution.

A table showing the number of cases dismissed from each of the four general hospitals for the year ended 31st December, 1946, arranged according to disease and sex will be found on Page 206.

STOBHILL, EASTERN AND WESTERN DISTRICT HOSPITALS.

Out-Patient Department.—The Out-Patient Departments continue to expand and below is a table showing the number of patients who were treated at the three hospitals :—

	Stobhill	Eastern District	Western District
Number of cases attending as Out-Patients	7,359	7,405	11,324
Number of Attendances	20,577	17,496	21,474

Dental Treatment.—No change is to be noted in the provision of dental treatment for both out-patients and in-patients.

Pathological Laboratories.—The following table shows the work of these laboratories :—

Autopsies	500
Histological Reports	784
Biological Tests	113
Bacteriological and Serological Reports	9,595
Wassermann Reactions	5,436
Colloidal Gold Tests	212

Refereeing of Cases.—The Board of Referees examined 148 cases, an average of 3 per week.

Electro-Medical Departments.—The following table shows the work of the Electro-Medical Departments :—

	Stobhill	Eastern District	Western District
Number of Radiographic Films taken ...	15,486	261	4,624
Number of Barium Meals	913	—	104
Number of Deep Therapy Treatments ...	2,915	—	—
Number of cases treated by Radium ...	22	—	1
Number of Sunlight Treatments given ...	450	1,874	4,509
Number of cases treated by Massage ...	2,104	152	153
Number of Massage Treatments given ...	22,204	3,047	7,849
Number of cases treated by electricity ...	311	99	144
Number of Electrical Treatments given ...	5,578	1,515	3,238
Number of Electrocardiographs	566	—	—

The total number of radiographic films taken at the three hospitals was 20,353, compared with 22,557 for the previous year.

Considerable research work has been completed by members of the staff of Stobhill Hospital and this comprises :—

(1) The trial of a new insulin preparation (Di-Insulin) ;

(2) The comparative effectiveness of drugs in treatment of intestinal flatulence ; and

(3) The clinical pharmacology of salicylates.

There is also important research work in progress of which the following are examples :—

(*a*) Metabolic aspects of hypopituitarism.
Water exchange in adrenal cortical deficiency.
Treatment of hypopituitarism with corticotrophic factor.

(*b*) Investigation of gastric function.

(*c*) Anti-anaemic activity of folic acid in various conditions.
Clinical testing of some new liver fractions in pernicious anaemia.

(*d*) Investigation of social aspects of geriatrics.

The following specialist clinics have been opened at Stobhill Hospital during 1946 :—

Dyspepsia Clinic ;

Anaemia Clinic ;

Diabetic and Endocrine Clinic.

The Electrocardiography Department has also been expanded. There are also weekly sessions for gastroscopy and occupational therapy with special reference to elderly patients. Under-graduate and post-graduate teaching have been continued as usual throughout the year.

A number of doctors recently demobilised from the Services have been attached to various Departments of the hospital for refresher courses.

Southern General Hospital.—The daily number of patients in residence and the highest and lowest figures for 1946 are shown on page 200.

Out-patients.—Out-Patient attendances numbered 56,022 with 41,185 in the previous year. The following table shows the work in more detail :—

REPORT OF PATIENTS AND ATTENDANCES AT OUT-PATIENT DEPARTMENT FOR YEAR ENDED 31st DECEMBER, 1946.

	Persons Attended	Total Attendances
Medical and Surgical	10,085	27,114
Nervous Diseases	111	1,267
Skin Diseases	852	3,801
Diabetes	36	442
Ear, Nose and Throat ...	1,258	2,742
Ante-Natal	1,015	3,477
Post-Natal	679	1,306
Diseases of Women	443	891
Dental	219	969
X-Ray Treatment	5,385	5,385
Massage Treatment	676	7,332
Light Treatment	230	925
Eye Treatment	202	371
	21,191	56,022

Surgical Department.—Operations under general or spinal anaesthesia numbered 2,950 as compared with 2,781 in the previous year.

X-Ray Department.—The following table shows the amount of work done in the X-Ray Department :—

Number of patients X-rayed	10,875
Number of Films used	22,683
Number of Barium Examinations	998
Number of Screen Examinations	1,888
Number of Deep Therapy Treatments ...	2,318
Number of Sunlight Treatments	2,264

The number of X-ray films used was 22,683, as compared with 19,299 in 1945. In addition there were large numbers of barium investigations carried out. Treatments numbering 2,318 by deep X-ray therapy were given.

OBSTETRICAL WORK IN THE GENERAL HOSPITALS.

The number of cases delivered in hospital has shown a decrease from 5,388 in 1945 to 5,384 in 1946. The following table summarises the work of the Obstetrical Departments in the four general hospitals :—

Cases delivered in hospitals—	Stobhill Hospital	Eastern District Hospital	Western District Hospital	Southern General Hospital	Total
Dismissed well ...	1,818	801	963	1,704	5,286
Died	9	3	5	8	25
Transferred	52	12	5	4	73
Total dismissals of cases which were delivered in Hospital	1,879	816	973	1,716	5,384

Method of Admission of above Cases—	Stobhill Hospital	Eastern District Hospital	Western District Hospital	Southern General Hospital	Total
Admitted during Ante-Natal period for treatment and delivered in hospital	33	9	4	25	71
Admitted to Labour Ward	1,841	807	969	1,691	5,308
Admitted to Labour Ward (via Glasgow Royal Maternity Hospital)	5	—	—	—	5
Total	1,879	816	973	1,716	5,384

Cases admitted during Ante-Natal period—					
Dismissed undelivered	364	118	111	313	906
Cases admitted after delivery	113	1	6	40	160
Abortions and miscarriages	768	87	61	460	1,376
Infants dismissed alive	1,659	745	928	1,564	4,896
Infants still-born ...	100	27	32	94	253
Infants Neo-Natal deaths	151	56	27	89	323
Total ...	1,910	828	987	1,747	5,472

The incidence of puerperal morbidity and mortality is shown in the following table :—

Hospital	No. of Cases		Cases per 1,000 Births		No. of Deaths		Deaths per 1,000 Births		Case Mortality %
	Fever	Pyrexia	Fever	Pyrexia	Fever	Non-Septic	Fever	Non-Septic	Fever
Stobhill	8	21	4·1	10·9	—	15	—	7·8	—
Eastern District	6	2	7·5	2·5	2	2	2·5	2·5	33·3
Western District	3	8	3·1	8·3	—	7	—	7·2	—
Southern General	6	16	3·3	9·0	—	12	—	6·8	—
Total	23	47	4·2	8·8	2	36	0·4	6·7	8·7

The number of deaths associated with the Obstetrical Departments was 43 as compared with 45 in the previous year. The death rate per 1,000 births was 7·1 compared with 7·6 and the death rate from puerperal sepsis decreased from 1·8 to 0·4.

GENERAL HOSPITALS.

Number of Cases Dismissed from each Hospital for the Year ended 31st December, 1946, arranged according to Disease and Sex.

DISEASES (Short Classification)	STOBHILL			EASTERN DISTRICT			WESTERN DISTRICT			SOUTHERN GENERAL			TOTALS			Percentage of Total Cases dealt with.	Average Days' Residence.	Percentage of Hospital Accommodation Occupied.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
Acute Infectious Disease ...	30	27	57	9	9	18	4	3	7	38	4	42	81	43	124	·40	15·1	·22
Influenza	28	17	45	5	2	7	1	1	2	10	3	13	44	23	67	·22	29·2	·23
Tuberculosis, Respiratory ...	123	23	155	20	9	29	13	9	22	49	45	94	205	95	300	·98	86·6	3·07
Tuberculosis, Non-Respiratory	25	22	47	6	1	7	3	7	10	20	14	34	54	44	98	·32	74·7	·87
Malignant Disease	257	141	398	57	27	84	30	21	51	149	105	254	493	294	787	2·56	44·5	4·13
Rheumatism, Acute	48	56	104	24	21	45	21	17	38	12	29	41	105	123	228	·74	86·4	2·32
Rheumatism, Muscular, etc. ...	17	14	31	7	8	15	8	2	10	20	13	33	52	37	89	·29	35·2	·37
Rheumatism, Chronic Arthritis	29	33	62	13	10	23	12	9	21	24	31	55	78	83	161	·52	100·9	1·92
Venereal	5	8	13	—	—	—	—	2	2	12	6	18	17	16	33	·11	48·2	·19
Pregnancy and Diseases connected with Child Bearing	—	3,124	3,124	—	1,022	1,022	—	1,151	1,151	—	2,529	2,529	—	7,826	7,826	25·45	13·1	12·16
Congenital Debility and other Disease of early infancy and malformations	56	41	97	14	4	18	29	9	38	36	16	52	135	70	205	·67	21·7	·53
Mental	148	133	281	37	29	66	3	1	4	318	79	397	506	242	748	2·43	74·8	6·55
Senile Decay	94	68	162	39	15	54	13	5	18	134	74	208	280	162	442	1·44	138·6	7·24
Violence	133	60	193	55	52	107	163	74	237	294	131	425	645	317	962	3·13	25·9	2·94
Disease not included in above—																		
Nervous System	409	284	693	78	30	108	46	35	81	328	217	545	861	566	1,427	4·64	63·6	10·72
Respiratory System	597	394	991	171	95	266	187	128	315	398	262	660	1,353	879	2,232	7·26	36·7	9·67
Circulatory System	284	220	504	98	71	169	50	46	96	177	124	301	609	461	1,070	3·48	55·9	7·07
Digestive System ...	1,044	745	1,789	120	78	198	821	809	1,630	855	610	1,465	2,840	2,242	5,082	16·53	12·9	7·73
Genito-Urinary System ...	149	308	457	48	198	246	33	58	91	154	281	435	384	845	1,229	4·00	26·0	3·77
Skin	252	190	442	3	2	5	4	12	16	267	74	341	526	278	804	2·62	53·2	5·05
Other Diseases	276	262	538	84	66	150	84	85	169	296	277	573	740	690	1,430	4·65	36·6	6·18
No Applicable Disease	14	13	27	5	3	8	4	2	6	12	11	23	35	29	64	·20	12·9	·10
Born in Hospital	923	887	1,810	424	377	801	504	451	955	882	71	1,653	2,733	2,486	5,219	16·98	11·0	6·77
Healthy Children	30	48	78	1	2	3	2	2	4	15	18	33	48	70	118	·38	14·7	·20
	4971	7127	12098	1318	2131	3449	2035	2939	4974	4500	5724	10224	12824	17921	30745	100·00	27·54	100·00

DIABETES—SUPPLY OF INSULIN.

Supplies of insulin are given to persons whose circumstances warrant such assistance and who are not already provided for under the National Insurance Scheme or Public Assistance. The following statement summarises the changes in the Roll during 1946 :—

Cases on the Roll at 31st December, 1945		330
Cases applying for the first time during 1946	92	
Cases who discontinued treatment prior to 31st December, 1945, but reapplied during 1946	5	
		97
		427
Cases who died during 1946	36	
Cases in respect of which supply of insulin ceased to be collected during 1946	50	
		86
Leaving cases on the Roll at 31st December, 1946		341

Of the 92 new cases applying for the first time during 1946, 56 were married women and 23 widows. Seven were outwith the National Insurance Scheme and six were children under 16 years of age. The 50 cases who discontinued were visited, and the following reasons were given for discontinuance :—

Gone away, not found at address given	11
Discontinued on medical advice	12
Discontinued of own accord	12
In hospital	7
Obtaining supplies elsewhere (per P.A.D., N.H.I., &c.)	8
	50

Of the 330 cases on the Roll at 31st December, 1946, 37 are males and 304 females. The proportion of married women on the Roll is now 69 per cent.

Married women	235
Widows	57
Unmarried women	12
Uninsured males	20
Children under 16 years ...	17
	341

The age distribution is as follows :—

Under 10 years	4
,, 20 ,, ...	15
,, 30 ,, ...	14
,, 40 ,, ...	19
,, 50 ,, ...	38
,, 60 ,, ...	93
,, 70 ,, ...	120
,, 80 ,, ...	34
80 and over	1
Not stated	3
	341

The various types of insulin issued to these 341 cases are :—

Ordinary Strength (20 units per c.c.)	39	(12)
Double Strength (40 units per c.c.)	51	(21)
Extra Double Strength (80 units per c.c.)	47	(33)
Protamine Zinc (40 units per c.c.)	166	
Protamine Zinc (80 units per c.c.)	17	
Globin (40 units per c.c.)	15	
Globin (80 units per c.c.)	6	
	341	

The figures in brackets indicate the number of cases using these insulins in combination with one or other of the Protamine insulins or with Globin.

	1944	1945	1946
Amount of Insulin supplied by the Central Drug Store (No. of phials)	19,555	21,231	22,969
Cost (including syringes, repairs and needles)	£1,691	£1,797	£2,036

The increased use of the more potent insulin continues.

	1944	1945	1946
Ordinary Strength (20)	4,885	3,936	3,316
Double Strength (40)	4,636	4,896	4,311
Extra Double Strength (80)	637	1,298	2,165
Protamine Zinc (40)	7,283	8,517	10,206
Protamine Zinc (80)	1,765	2,082	2,025
Globin (80)	63	204	673
Globin (40)	286	298	273
	19,555	21,231	22,969

PART IV.

MENTAL SERVICES.

The shortage of nursing staffs to which reference has been made in recent annual reports has continued throughout the year under review and still presents the major problem in the administration of the mental institutions. In spite of considerable improvements in the conditions of service of the nursing staffs which have been introduced from time to time in recent years the greatest difficulty is still being experienced in the recruitment of sufficient nurses to look after the patients in the wards at present occupied. In several of the mental hospitals, notably Gartloch and Woodilee, there is ample accommodation for additional patients which cannot be utilised owing to the lack of staff. As a result there is a considerable degree of overcrowding in the occupied wards and less efficient segregation of patients with, in consequence, greater strain on the nursing staffs working short handed in overcrowded wards. Little improvement can be looked for in this direction until more nurses become available. It was hoped that with the release of large numbers of young persons from the armed forces there would be a greater influx to the nursing services but so far, this hope has failed to materialise. Practically every channel of recruitment has been and is being explored but the results continue to be relatively poor.

In consequence of the staffing difficulties in the mental hospitals the admission of new patients has been considerably restricted and as a result, the psychiatric units in the general hospitals have continued to be heavily handicapped through overcrowding and have had to retain many cases who should have been certified and removed to mental hospitals. The retention of these cases in the psychiatric units is detrimental to the treatment of psychoneurotics and early cases of incipient mental disorder for the treatment of whom the units were originally established. Throughout the year there has been a long waiting list of patients recommended for admission to the psychiatric units. These have had to remain at home, often under conditions of great difficulty, under the regular supervision of health visitors who report on their progress or on the development of any untoward symptoms necessitating their removal to hospital as a matter of urgency.

The number of certified cases admitted to the mental hospitals during the year shows a decrease of 71 on last year's figures but it would be wrong to conclude from this fact that the incidence of mental disease was decreasing in view of the circumstances already referred to in connection with the shortage of nurses. A much greater number of patients would certainly have been admitted had more staff been available.

Modern forms of treatment continue to be utilised in all the mental hospitals with satisfactory results considering the types of patients admitted to them. As a large proportion of these cases had already been under treatment for some time in the psychiatric units and had failed to respond to treatment there many of them were of the more difficult type or were suffering from more chronic forms of mental disorder with correspondingly smaller chances of recovery. It is to the credit of the mental hospitals that they are able to maintain a satisfactory recovery rate year after year in spite of the unpromising material admitted. Electric convulsant therepy, hydrotherapy, pyrotherapy and other modern forms of treatment, including the use of malaria in the treatment of general paralysis, continued to be employed in the hospitals during the year.

As a result of the evacuation of the mental patients from Gartloch to other hospitals at the beginning of the war when Gartloch was taken over an as Emergency Hospital the upkeep of the grounds and pathways suffered considerably from neglect. When the evacuated patients are returned from the other mental hospitals it is hoped that this state of affairs will be remedied and that the grounds will again resume the state of neatness and tidiness which is so marked a feature of all mental hospitals. Care and maintenance of the grounds is one of the best forms of occupational therapy for many of the chronic cases as the work is not heavy and provides a healthy and useful outlet for their energy in the open air and is, in addition, greatly enjoyed by many of the patients.

Towards the end of the year Dr. Arthur M. Dryden retired under the superannuation scheme after nearly forty years service in the

Glasgow mental hospitals. For the past twenty-two years he had been Medical Superintendent at Gartloch and when that institution was taken over at the beginning of the war as an Emergency Hospital, catering for all types of Service and Civilian cases, he remained in charge of its administration with great energy and efficiency. He was succeeded at Gartloch by Dr. Ronald Stewart, the Deputy Medical Officer for Mental Services.

Dr. Alexander Dick, Medical Superintendent of Hawkhead draws attention amongst other matters in his report to the increased strain thrown on the clerical staffs and the House Steward's Departments owing to the many changes that have recently been introduced in the conditions of service and rates of pay of employees. The following are extracts from his report :—" The many changes in the rates of pay and conditions of service of the staff have involved an already overburdened clerical staff in much additional work, requiring frequent spells of overtime to keep their books up to date. The food and diets provided for patients and staff have been plentiful and varied and on the whole can be regarded as most satisfactory. I regret to say, however, that the clothing and footwear of the patients have not come up to the required standard owing to a deficiency of these articles." " During the past year the problem of a depleted female nursing staff has been continually present but the position has been eased by male nurses taking over male wards previously staffed by female nurses. We have been able to carry out this arrangement owing to a sufficient number of male recruits entering the service. All modern methods of treatment have been carried out with satisfactory results and the medical staff have been interested in various researches."

In 1939 the Corporation had decided to proceed with the erection of a Nurses' Home and an extension to accommodate 150 additional patients at Stoneyetts Hospital. At Gartloch also plans had been approved and building operations commenced on the erection of a new hospital block to house 300 patients. When war broke out these projects had to be abandoned and, so far, it has not been found possible to resume them owing to shortage of labour and materials. With so much accommodation lying vacant at Gartloch and Woodilee and unable to be utilised owing to lack of nursing staff the provision of additional accommodation does not appear to be a matter of great urgency. The provision of a Nurses' Home at Stoneyetts Hospital, however, should be proceeded with as soon as conditions will allow as the present accommodation for the nurses in a cubicilised pavilion is unsatisfactory and not in keeping with modern ideas of nurses' accommodation in hospital.

Although Lennox Castle is now no longer an Emergency Hospital it has not yet been found possible to return it wholly to its proper use as a Certified Institution for Mental Defectives owing to the continued use by the Corporation of several villas as a Maternity Unit. This is likely to continue for several years owing to the difficulty in finding suitable alternative accommodation.

MENTAL HOSPITALS.

Admissions, Discharges and Deaths.—The number of certified cases admitted to the mental hospitals during the year was 317, a decrease of 71 on the number admitted during the previous year. Many cases of certifiable mental disorder remain in the psychiatric units of the general hospitals owing to the lack of available accommodation in the mental hospitals.

There were 3,331 patients under care in the mental hospitals during the year, as compared with 3,354 during the previous year; the number remaining in the Corporation mental hospitals on 31st December, 1946, was 2,964, including 103 Smithston cases boarded temporarily in Gartloch by the Renfrewshire Authority when Smithston was taken over during the war by the Canadian Government as a naval hospital.

The number of patients discharged recovered was 107. This number shows a slight decrease on the figure for the previous year when the number was 120 but is a fairly satisfactory result considering the types of patients admitted. During the year 25 cases of Schizophrenia, 8 cases of paraphrenia, 54 cases of Senile Dementia, 9 cases of General Paralysis and 15 cases of Organic Dementia associated with Arterio Sclerosis were admitted, all of which forms of disorder are of less hopeful outlook than the Manic-Depressive and Confusional types of insanity, of which 29 cases were admitted.

Owing to the absence of any serious epidemics and to the general good health of the communities in the mental hospitals the death rate was again a low one although slightly higher than in the previous year. The number of patients who died was 176 and of these fifty-seven per cent. were over sixty years of age. As in previous years the commonest causes of death were cardio-vascular degeneration, respiratory diseases and senile degeneration.

Of the patients discharged recovered, the great majority were discharged within two years of admission ; thus 76 per cent. were discharged within one year, 13 per cent, after one year and within two years, 5 per cent. after two and within five years and 6 per cent. after residence of more than five years. Seven patients were discharged recovered after continuous residence of more than five years. The opposite tendency is seen in the patients who died, of whom upwards of 61 per cent. had been resident for more than five years.

The causative factors in the production of mental disorders are extremely difficult to determine with any degree of accuracy. Constitutional and environmental factors both play an important part. In the cases admitted during the year the assigned cause in approximately 28 per cent. was constitutional inferiority, while mental stress and senility accounted for the breakdown in many of the admissions. In less than 2·5 per cent. was the breakdown attributed to war strain. Alcohol was considered to be the main causative factor in twenty-one cases. There is no direct evidence to show that war conditions materially increased the incidence of insanity amongst the civil population.

Patients in Other Institutions.—At 31st December, 1946, there were 496 Glasgow patients boarded out in institutions owned by other authorities, a decrease of 21 on the number at the corresponding date in 1945. This figure does not include the patients transferred from Gartloch to Gartnavel and Lochgilphead on the outbreak of war in 1939.

Admission of Lunatics from H.M. Prisons.—There was again a large number of " Fiscal Cases " admitted during the year ; 112 of these cases (100 men and 12 women) were admitted, a number corresponding exactly with the number admitted during 1945. The large number of these " fiscal cases " causes considerable strain and embarrassment in the administration of the mental hospitals owing to the restrictions necessarily imposed in the care and supervision of this difficult type of patient. Other ordinary patients housed along with them suffer through these restrictions and resent being treated alongside the " fiscal cases," with the result that an ever-increasing strain is thrown on the nursing staff. No relief can be looked for until the State Institution at Carstairs reverts to its proper function. Approaches have again been made to the General Board of Control for Scotland with a view to expediting the release of the State Institution as soon as possible.

Licensed Wards in Southern General Hospital.—The 389 beds provided in these wards continued to be used to their full capacity during the year. The accommodation set aside in them for the treatment of illness and infirmity amongst the patients, most of whom are of the ambulatory type, has continued to serve a useful purpose in obviating the transfer of such cases to the hospital wards of the mental hospitals which are already taxed to their full capacity.

Dental Services in the Mental Hospitals and Certified Institutions.—Mr. John Caldwell Kyd, L.D.S., the dental surgeon to the mental institutions carried out the following treatments during the year; 1,675 patients were examined, including one who refused treatment; 1,602 extractions; 72 fillings; 17 dressings; 64 scalings; 204 dentures supplied; 2 dentures remodelled and 76 dentures repaired; 2 root treatments.

CERTIFIED INSTITUTIONS FOR MENTAL DEFECTIVES.

Lennox Castle.—The number of certified mental defectives on the register of this institution at the end of the year was 1,316, an increase of 6 compared with the previous year; 98 cases were admitted; 79 cases were discharged and 13 patients died during the year. All of the patients discharged were transferred to other institutions. Dr. James Curran, Medical Superintendent, reports as follows:—"The general health for the past year has been good. There have been no major outbreaks of infectious disease.

Juvenile Delinquent Defectives.—Play therapy has now been augmented by Occupational Therapy and the results are gratifying from both the therapeutic and financial angles. The unqualified teachers have done excellent work and the educational attainments of the patients are satisfactory.

The general health and well-being of the patients has been greatly improved by the care and attention given to their mouths and teeth.

Staff.—The number of male and female student nurses is just sufficient to allow of the operation of the 96 hour fortnight which was started in March, 1946. Two male nurses have passed the final examination for the R.M.P.A. Certificate. Four males and three females have passed the preliminary examination of the R.M.P.A.

Accommodation.—The closing of the Emergency Hospital has reduced the over-crowding in the male Division, but until the entire lower section of the institution is available for male patients, over-crowding on the female side will persist and the proximity of the sexes will continue to cause anxiety. The Admission Wards are now being used for the first time in the history of the Institution and sick patients are now transferred to the Hospital Block instead of being nursed in the Villa Dormitories as hitherto."

Caldwell House.—On 31st December, 1946, the number of patients was 116 (65 males and 51 females). Twenty patients were admitted—11 boys and 9 girls. Twenty-seven boys and two girls were transferred to other institutions or boarded out in private dwellings and one boy and two girls died.

Miss Young, Superintendent, reports as follows :—" The general health of the patients and staff has been fairly good throughout the year. There were a few cases of Scarlet Fever in December, all of a very slight nature. The patients continue to attend the Occupational Therapy classes and a sum of £18 7s. was realised by their work. Difficulty in maintaining an adequate staff of nurses has continued throughout the year."

PSYCHIATRIC UNITS IN THE GENERAL HOSPITALS.

During the year the number of admissions to the Psychiatric Units of the General Hospitals was 1,304 and the total number of cases treated was 1,710. These figures compare with 1,560 and 1,944 respectively for the previous year. The decrease in the number of admissions was due almost entirely to the difficulty of obtaining beds in the mental hospitals for patients who should have been removed there.

Of the 1,710 cases treated in the general hospitals, 841 (49 per cent.) were sufficiently recovered to be sent home or, where they had no home, to an institution under the Welfare Department ; 342 patients died (16·6 per cent.) the majority of whom were old people suffering from senile degeneration ; 118 (7 per cent.) were certified and transferred to mental hospitals or certified institutions for further treatment.

Overcrowding has continued to be very marked, particularly on the female side, where the demand for beds for cases of senile dementia has been heavy. There is still a long waiting list for beds for female patients. While awaiting admission these patients are supervised by District Medical Officers and Health Visitors who visit them in their own homes and report on the development of any untoward symptoms necessitating their removal to hospital as a matter of urgency. The difficulty in finding accommodation for these cases of mental disorder creates an extremely harassing and dangerous position but no alleviation can be looked for until more nurses become available for both the mental and general hospitals.

Dr. I. M. Sclare, one of the Visiting Psychiatrists at Stobhill Hospital reports on the work of the Psychiatric Unit at that hospital as follows :——

" Nineteen Forty-Six was a very good year in the Psychiatric Unit for there was a steady record of just those successes in mental treatment for which Stobhill has always been outstanding. These patients were chiefly sufferers from borderland psychotic states, some with accompanying bodily illness, many with difficult environmental problems and, above all, a large number who were finding life difficult after the upset of war.

In these days when Psychiatry is degenerating into a business of button switchings, injections and surgical operations, it is more than ever essential to emphasise the valuable service offered by the Psychiatric Units of the general hospitals. Here we realise that the mentally ill are human beings for whom the only rational treatment comprises painstaking personal study, care and attention to the individual's mental and bodily health and assiduous regard for the precise environment to which he belongs. This is highly specialised work for which no true short-cuts exist.

Never before have we found it so difficult to get the certified patient removed. Drastic improvement is called for because it is courting disaster to harbour certified patients in a general hospital, and because the presence of such patients seriously militates against the carrying out of the true functions of these wards.

We now have a Social Sister and a Medical Registrar. These appointments are certainly going to make for increased economy and efficiency in our work.

Throughout the year considerable progress was made along the lines of occupational therapy. Certain indoor crafts were instituted for bedridden patients and physical training classes were organised by the Physio-Therapy Department and outdoor gardening facilities were made available under the guidance of the head gardener.

In the Autumn the out-patient service at Stobhill was officially recognised and concentrated in the Reception Block and the Cochrane Street Clinic was discontinued. It is too early to report adequately on the latter aspect of these changes. Although the valuable Cochrane Street service has unfortunately to be written off, we are doing all in our power to establish at Stobhill a good-going clinic to serve the hospital itself and the surrounding districts."

At the Southern General Hospital also the work of the Psychiatric Unit and Clinic has increased considerably and excellent results continue to be obtained. Dr. Alexander Dick, Medical Superintendent, Hawkhead Mental Hospital, who is in charge of this unit, makes the following comment in his report :—

" The past year has shown no abatement in the pressure of work in this unit indicated in the statistical tables by the increase in numbers admitted to the wards and the increased attendances at the Out-Patient Clinic. These figures have not to be taken as due wholly to an increased incidence of nervous and mental illness in the general community. Other factors have contributed, one of the chief being the more informed recognition of nervous and incipient mental disorders and of the functions of the Psychiatric Clinic by medical practitioners and the general public. In addition, cases in increasing numbers from the Western Infirmary, Royal Infirmary and the Lansdowne Clinics are being referred to us for special treatments. Our contacts with Social Service bodies and Probation Officers are becoming more frequent and generally there has been a marked increase in the activities of the Unit.

Many beds continue to be occupied by patients exhibiting the mental and physical deterioration associated with old age, the chronic psychotics and the feeble-minded. In addition to care and supervision many of them require experienced and time-consuming nursing and these necessary duties interfere with and hinder the treatment of the acute and recoverable cases.

Our methods of treatment have kept pace with modern ideas and standards and our results can be considered as most satisfactory. The value of occupational and recreational therapy is now fully recognised and more attention is being devoted to this form of treatment."

In the tables following will be found the more important details of the admissions, discharges and deaths for the year 1946.

SHOWING NUMBERS ADMITTED TO GLASGOW MENTAL HOSPITALS AND THE CHANNELS THROUGH WHICH THEY WERE ADMITTED DURING THE YEAR 1946.

	Hawkhead		Woodilee		Stoneyetts		Gartloch	
	M.	F.	M.	F.	M.	F.	M.	F.
Observation Wards ...	9	7	6	7	4	9	24	8
Home, Police Stations, Infirmary, etc. ...	29	27	5	15	2	8	1	5
Transferred from other Asylums or Certified Institutions	7	4	1	—	1	1	23	2
H.M. Prisons	50	5	35	3	10	2	5	2
Totals ...	95	43	47	25	17	20	53	17

ASSIGNED CAUSES OF INSANITY IN PATIENTS ADMITTED TO THE MENTAL HOSPITALS DURING THE YEAR 1946.

	Male	Female	Total
Mental Stress (including domestic or business worry, adverse circumstances, unemployment, social environment, anxiety, etc)	8	17	25
Constitutional Psychopathic Inferiority	79	9	88
Alcohol	20	1	21
Heredity	7	9	16
Syphilis	7	3	10
War Strain	8	—	8
Arterio-Sclerosis	7	9	16
Epilepsy	10	5	15
Encephalitis Lethargica	1	3	4
Mental Deficiency	6	3	9
Physical Strain	4	4	8
Adolescence	14	6	20
Menopause	—	2	2
Puerperal	—	4	4
Senility	11	14	25
Trauma	3	—	3
Previous Attack	13	15	28
Organic Brain Disease	2	—	2
Unascertained	12	1	13

FORMS OF MENTAL DISORDER IN THE ADMISSIONS, RECOVERIES AND DEATHS IN THE MENTAL HOSPITALS DURING 1946.

	Admissions.			Recoveries.			Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
nherent Developmental Defects—									
Mental Deficiency—									
(*a*) Idiocy	2	—	2	—	—	—	—	—	—
(*b*) Imbecility	4	1	5	—	—	—	—	2	2
(*c*) Feeblemindedness	17	4	21	—	—	—	2	4	6
(*d*) Moral Imbecility	12	—	12	3	—	3	—	—	—
Epileptic Insanity	14	6	20	2	—	2	3	5	8
Schizophrenia—									
(*a*) Simple	36	7	43	15	4	19	10	7	17
(*b*) Hebephrenic	5	3	8	3	2	5	1	2	3
(*c*) Katatonic	7	4	11	1	—	1	—	1	1
(*d*) Paranoid	14	7	21	1	—	1	1	3	4
Paraphrenia	10	5	15	1	2	3	3	5	8
Paranoia	—	1	1	—	—	—	1	1	2
Psychoneuroses—									
(*a*) Neurasthenia	1	—	1	1	1	2	—	—	—
(*b*) Psychasthenia	2	—	2	3	1	4	—	—	—
(*c*) Hysteria	3	1	4	—	3	3	—	—	—
(*d*) Neurosis	—	—	—	1	—	1	—	—	—
oxic and Confusional Psychoses—									
Manic Depressive Psychosis	35	21	56	20	21	41	11	13	24
Acute Delirium	1	—	1	—	—	—	—	1	1
Acute Confusion	2	2	4	6	2	8	3	1	4
Stupor	—	—	—	—	—	—	—	—	—
Exhaustion Psychosis	—	—	—	—	—	—	—	—	—
Alcoholic Insanity—									
(*a*) Delirium Tremens	—	—	—	—	—	—	—	—	—
(*b*) Mania a Potu	1	—	1	—	—	—	—	—	—
(*c*) Korsakows' Psychosis	—	—	—	—	—	—	—	—	—
(*d*) Chronic Alcoholic Insanity	10	1	11	4	—	4	7	1	8
Cocaine, Morphine and other Drug Insanities	—	—	—	—	—	—	—	—	—
Involutional Psychoses	1	9	10	—	6	6	—	7	7
lcquired Defects—									
Pre-Senile Psychosis	3	3	6	—	—	—	6	2	8
Senile Dementia—									
(*a*) Simple	10	9	19	—	2	2	8	22	30
(*b*) With Mania	2	6	8	—	—	—	1	8	9
(*c*) With Depression	2	1	3	—	—	—	2	4	6
(*d*) With Presbyophrenia	—	—	—	—	—	—	—	1	1
General Paralytic Dementia	7	3	10	—	—	—	8	1	9
Traumatic Dementia	—	—	—	—	—	—	—	—	—
Organic Dementia—									
(*a*) Tumour	—	—	—	—	—	—	—	—	—
(*b*) Gumma	—	—	—	—	—	—	—	—	—
(*c*) Arterio-sclerosis	7	9	16	—	2	2	6	9	15
(*d*) Meningitis	—	—	—	—	—	—	—	—	—
(*e*) Encephalitis	1	3	4	—	—	—	—	1	1
(*f*) Other Cerebral Diseases	2	—	2	—	—	—	4	—	4
(*g*) Huntington's Chorea	—	—	—	—	—	—	—	—	—
Psychopathic Personality	—	—	—	—	—	—	—	—	—

Psychiatric Units in General Hospitals.

	Stobhill			Eastern District			Southern General			Total		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Remaining at 31st December, 1945	102	129	231	23	30	53	95	27	122	220	186	406
Admitted during 1946	318	243	561	70	54	124	483	136	619	871	433	1,304
Numbers treated	420	372	792	93	84	177	578	163	741	1,091	619	1.710
Discharged home of transferred to Welfare Institution	195	132	327	44	31	75	344	95	439	583	258	8
Died	91	65	156	15	14	29	85	15	100	191	94	285
Removed to Mental Hospitals	17	18	35	1	2	3	58	22	80	76	42	118
Remaining at 31st December, 1946	117	157	274	33	37	70	91	31	122	241	225	466

ADMISSIONS, DISCHARGES AND DEATHS IN THE MENTAL HOSPITALS DURING 1946.

	Gartloch			Woodilee			Hawkhead			Stoneyetts			Total.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total
On Register at 31st December, 1945	105	128	233	660	607	1,267	678	543	1,221	150	143	293	1,593	1,421	3,014
Number of cases admitted during the year	53	17	70	47	25	72	95	43	138	17	20	37	212	105	317
Total cases under care during the year	158	145	303	707	632	1,339	773	586	1,359	167	163	330	1,805	1,526	3,331
Cases discharged and died during the year—															
Recovered	6	2	8	6	12	18	39	23	62	10	9	19	61	46	107
Not recovered ...	1	0	1	21	9	30	19	3	22	2	2	4	43	14	57
Died	8	11	19	22	35	57	41	43	84	6	10	16	77	99	176
Transferred to other Institutions in Scotland and boarded out in private dwellings	1	1	2	6	2	8	11	4	15	1	1	2	19	8	27
Total Cases discharged and died during the year	16	14	30	55	58	113	110	73	183	19	22	41	200	167	367
Total cases on Register at 31st December 1946	142	131	273	652	574	1,226	663	513	1,176	148	141	289	1,605	1,359	2,964